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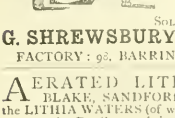

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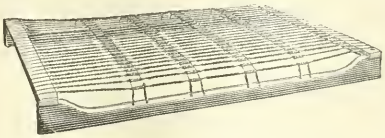

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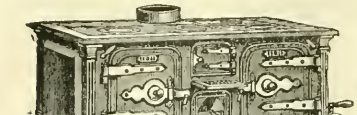

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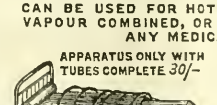

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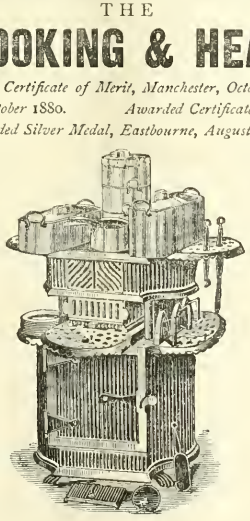

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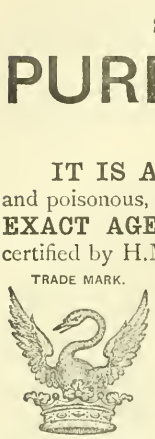

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The Practitioner of September 1881 contains an Abstract of a Lecture entitled 'Recent Advances in the Therapeutics of Diseases of the Skin', by Professor W. A. JAMIESON, M.D., F.R.C.P. Ed. The Professor said:—'Itching, which owes its origin to too slow a current of blood, of which the most typical example is that seen in Eczema connected with varicose veins of the leg, but to the same category also many examples of Pruritus Scroti, Labiorum, and Ani, may be referred, is best relieved by careful flannel bandaging, well applied suspensory bandages, and laxative salts or mineral waters, which unload the rectal veins by freezing the portal circulation, combined locally with weak tarry lotions, one of the best of which is WRIGHT'S LIQUOR CARBONIS DETERGENS, a well-made alcoholic solution of coal tar, suitably diluted.'

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The London Medical Record.

WAGNER ON THE TREATMENT OF EMPYEMA.

Dr. W. Wagner of Königshütte, in commenting on a case of empyema successfully treated by operation under antiseptic conditions (*Sammlung Klinische Vorträge*, No. 197), states that the treatment of this affection has now reached a fresh stage; and that, since the introduction of Listerism, an operation, instead of being a mere palliative measure, is to be regarded as justifiable under all circumstances, and, in cases of simple empyema at least, as free from risk.

The surest way, Wagner asserts, of distinguishing an empyema from a simple pleuritic exudation, is to make an exploratory puncture. This may be done with a disinfected hypodermic syringe and trocar, or, better still, with a larger syringe, such as that used by veterinary surgeons, which holds about five grammes of fluid, and is furnished with a strong and large needle. The exploratory puncture, however, does not always guard against errors in diagnosis. In the first place, a case may be met with in which there are two separate and distinct exudations, one a serous, the other a purulent exudation. Then, again, it may happen, especially in cases of exudation, originally serous or seropurulent, that have become purulent, that the exploratory puncture will give vent to serous fluid in the upper part of the collection and to purulent fluid below. In a patient lying constantly on his back, this precipitation will take place not to the inferior but to the posterior part of the thoracic cavity, so that serum will be present in front and pus behind. Dr. Wagner, though acknowledging that cases of this kind are rare, lays it down as a rule that, in every case of pleural exudation in which the general symptoms indicate empyema, several exploratory punctures should be made at different parts of the corresponding thoracic wall, should it happen that at the first or earlier punctures serum and not purulent fluid is withdrawn.

At the present day, no medical man believes in the possibility of the absorption of a purulent pleural exudation. The so-called 'natural cure', in which the pus is discharged through the air-passages, is of rare occurrence, and, when it does occur, is likely to have bad results, and to give rise to phthisis through the contact of the discharge with the lung-tissue, or through its aspiration into the fine bronchial divisions. Spontaneous discharge of an empyema through the thoracic wall cannot be regarded as a favourable termination, as it is often followed by an obstinate fistula.

In a case of well-marked empyema there is, in Wagner's opinion, an almost unconditional indication to operate at as early a date as possible. Unless the affected pleura covering the lung be soft and yielding, and the lung itself be capable of complete re-expansion, the chances of a speedy and good cure will not be favourable. An acute pneumonic infiltration still persisting, whether to a high or low degree, should not prevent early recourse to operative treatment, for with removal of the empyema the pressure on the lung is removed. This organ is thus set free, and as its normal conditions of circulation become re-established, the absorption of the inflammatory exudation is favoured. If the inner wall of the abscess be stiff and unyielding in consequence of thickening of the pulmonary pleura, then cure cannot be effected speedily, and cannot possibly occur at all, unless the resistance of the thoracic wall or that of the tough pulmonary pleura can be overcome. Wagner sums up his remarks on this subject by stating that, when we operate in the early stage of empyema, we meet with the most favourable conditions for the re-expansion of the lung, and for the approximation of the walls of the abscess. The older such an abscess, the thicker will be its walls, and the greater difficulty will there be in the obliteration of its cavity. In the application of the above rule, it is, of course, to be understood that the operation be performed under antiseptic conditions. Dr. Wagner is not in favour of treating empyema by simple puncture and aspiration. Such treatment may occasionally prove successful, especially with young children, in which class of patients there is likely to be a rapid re-expansion of the lung after removal of the purulent fluid; but it is attended with this disadvantage, that, as it is almost always impossible thus to remove all the pus, there is likely to remain a small quantity of this secretion, the presence of which invariably causes a relapse of the empyema. The rule is laid down by Wagner that it is not justifiable to try puncture more than once in a case of empyema, and that, if this first attempt do not succeed, the surgeon ought without delay to have recourse to incision. The longer an empyema is allowed to run its course, the less favourable become the chances of a cutting operation, and with repetition of simple puncture valuable time is lost.

Though an incision through the thoracic wall low down in the back of the chest may be most favourable for a full discharge during the operation, and in the course of the after-treatment, yet, Dr. Wagner holds, this situation can hardly be regarded as being under all circumstances the best in the operation for empyema. The inferior and posterior part of the affected pleural cavity is often obliterated in consequence of pleurisy, and the space may be so contracted through approximation of the elevated diaphragm and the inner wall of the thorax, and also through re-expansion of the lung, that free discharge of pus from the pleural sac is prevented. Dr. Wagner prefers an incision in the fifth or sixth intercostal space, near to the edge of the latissimus dorsi muscle; and in order to promote a free discharge during the after-treatment, he keeps his patient lying on the side, with the pelvis and lower part of the trunk elevated on a firm pillow.

In the cutting operation for empyema, Dr. Wagner recommends the administration of an anæsthetic. With anæsthesia, the surgeon is less likely to be disturbed through restlessness of the patient, and he may, if it be found necessary, proceed without delay to resect a portion of rib. Care, however, must be taken that the movements of the chest on the sound side are not impeded during the operation. Sudden death, which has occurred in some cases of empyema during operation, cannot, it is stated, be attributed to the anæsthetic. It has been due rather to some disturbance of circulation (thrombosis, cerebral anæmia, embolism of the pulmonary capillaries, pulmonary congestion, or œdema). These instances of sudden death have occurred as frequently during simple thoracentesis without anæsthesia, as in cutting operations for empyema.

The details of the cutting operation are very simple. The surgeon either makes an incision through the skin about two inches in length along the upper margin of a rib, and then slowly divides the muscles until he reaches the pleura, which he opens with a small bistoury; or, following König's practice, he resects subperiosteally a portion of rib about one inch in length, and then opens the thoracic cavity by incising the posterior layer of periosteum and the pleura. This latter operation should always be performed when the intercostal space is not of sufficient width to admit of the passage of a wide drainage-tube. It is not likely to be attended with any bad result, and in young subjects the resected portion of rib is almost always wholly replaced.

During the flow of pus, which should not be allowed to take place too rapidly, the surgeon should carefully examine the fluid, and also introduce his finger through the opening into the pleural cavity, in order to ascertain the condition of the surrounding wall. He thus endeavours to make out indications for future treatment. If the purulent discharge be free from smell, and do not contain flakes, no injection need be made into the sac; but if, on the other hand, it be fetid, and be mixed with large and numerous fibrinous masses, then it is necessary to wash out the cavity. Dr. Wagner now uses in such cases a 7 per cent. solution of boracic acid. If the walls of the purulent sac be felt to be thick and rough, and if they be evidently covered by adherent masses of fibrine, then it is necessary to wash out the cavity thoroughly and repeatedly with strong antiseptic solutions, which, in order that chilling may be avoided, should be warmed before they are injected. It is advisable, in dealing with such a condition, to make a second opening into the thoracic cavity.

When the pleural cavity has been opened, relieved of its purulent fluid, and washed out, or, as should always be done in simple cases of pyæmia and with children, has been simply emptied, a piece of drainage-tube of wide calibre, the length of which need not be more than two inches, should be inserted into the wound. Across this tube, near its outer extremity, a needle is thrust. This prevents the tube from falling into the thoracic cavity, whilst two sutures applied to the margins of the external wound and tied around the needle prevent it from being forced outwards. During the operation and immediate dressing, and also during subsequent dressing, Dr. Wagner guards the exposed parts by the carbolic acid spray. The first dressing, by which the whole of the affected side of the chest is covered, and which reaches from the axilla to the pelvis, consists of thick layers of Lister's gauze and of salicylated wadding. The first dressing ought not, it is stated, to be allowed to remain for a longer period than twenty-four hours, even though no secretion has made its way to the surface. The surgeon should then make sure that the drainage-tube remains in position, and that it is patent, and not obstructed by a clot. Retention of pus thus caused is a serious matter in a case of simple empyema, since a continuous and full discharge of the secretion is a necessary condition of a speedy cure. For the same reason, it is held advisable to change the second dressing after a short interval. The thermometer is a sure indicator of retention of pus, but not until this has been established for some hours. During each change of dressing, which, as has been stated, is always done in Dr. Wagner's practice under the spray, the drainage-tube should be removed and thoroughly cleansed, and, if necessary, be shortened before it is replaced. If, during the after-treatment of a primarily simple case of empyema, the pus become fetid and mixed with flakes and shreds of fibrine, the pleural cavity at each change of dressing must be washed out with an antiseptic solution. Dr. Wagner recommends a solution (three to eight per cent.) of boracic acid, or a five per cent. solution of chloride of zinc.

Careful observation of temperature is of the highest importance during the after-treatment of empyema. In a case of simple empyema, the temperature, after an antiseptically performed operation, should from the first be almost normal, unless there be any disease of the lungs or other viscera. An evening temperature of over 101 deg. should always arouse a suspicion that the pus does not flow freely, or that it is no longer in a good condition. A persistence of fever may be caused also by the presence within the pleural sac of fibrinous masses, and, in such case, steps should at once be taken to remove these. In many cases of empyema, these masses exist in abundance, and set up fever by acting as foreign bodies and by becoming decomposed. When the purulent fluid discharged at the time of operation is found to contain fibrinous flakes, and the walls of the cavity can be felt to be roughened and covered by similar deposits, the case can only be treated as one of simple empyema, and an attempt must be made to remove all the material. A portion of rib should be resected, in order that the opening in the thoracic wall may be of sufficient size, and the surgeon should then attempt to remove as much as he is able of these fibrinous masses, by introducing his finger and by washing out the cavity. The injected fluid should be an antiseptic one sufficiently concentrated to disinfect, as far as may be possible, any remaining deposits. The use of such injections should be continued until the purulent discharge becomes free from smell, and is no longer mixed with portions of fibrinous material. The further treatment of complicated empyema, so long as the pus is in good condition, is the same as that of simple empyema.

Dr. Wagner warns against replacing too soon during the after-treatment a thick and short drainage-tube by one of smaller calibre. A weak and narrow tube will more readily become obstructed, and offers less resistance to the tendency of the ribs immediately above and below the wound to come together and obstruct the flow of pus. When there has been no secretion for about eight days, and the temperature has remained during this period quite normal, the drainage-tube may be removed. The wound generally heals then very rapidly. If in cases of this kind there occur a reaccumulation of pus, the abscess is usually a small one, and its sac is cut off from the pleural cavity. If the discharge do not cease very soon, it would be advisable, Dr. Wagner states, to brush over its lining membrane a strong solution of chloride of zinc. No injection should be made into this abscess, as the recent adhesions might readily be broken down. W. Johnson Smith.

RINGER ON THE INFLUENCE OF ANÆSTHETICS ON THE HEART:

AND ON THE ANTAGONISM OF POISONS.

Dr. Ringer has recently published two papers (*Practitioner*, June and July, 1881) which throw considerable light on the action of anæsthetics on the heart; and incidentally on the vexed question of antagonism. The observations were made with Roy's

apparatus, a description of which will be found in Dr. Roy's paper 'On the Influences which Modify the Work of the Heart (*Jour. of Physiol.*, vol. i, p. 452). Considerable difficulties have hitherto been experienced in working this apparatus, arising chiefly from the inconvenience of having to obtain fresh blood for each experiment.

Dr. Ringer finds that the desiccated defibrinated bullock's blood, imported by Parke, Davis, and Co., of Detroit, Michigan, answers the purpose admirably. It can be readily obtained, as it is frequently used for enemata, in cases of gastric ulcer, etc. For physiological purposes it is dissolved in distilled water, and then diluted with saline, one part of blood-mixture being used to two of salt solution. In each experiment three ounces were used, the same blood being employed in the same series of observations, so that the poison and its antidote were intermixed.

Chloroform acts powerfully on the ventricle of the frog's heart. Like lactic acid, muscarin, and jaborandi, it lessens both the height and duration of the trace until, finally, the heart is arrested in diastole. In one experiment, a minim of chloroform nearly stopped the ventricle; and, when the heart had almost ceased beating, the addition of two tenminim doses of strong solution of ammonia at once restored its action, until the contractions became almost as powerful as at first. The addition of ten drops of chloroform again stopped the heart. This shows the powerful paralysing effect of chloroform, and demonstrates most conclusively the mutual antagonism existing between chloroform and ammonia.

It is clear that chloroform does not arrest the ventricle by stimulating the inhibitory apparatus, for the portion of the heart employed contains no inhibitory nerves. Chloroform clearly paralyses the muscular substance of the heart, for it is well known that the muscular tissue will beat rhythmically without the presence of nervous ganglia. It is evident, therefore, that, did the chloroform paralyse only the ganglia of the ventricle, the ventricle itself would still continue to beat. Further experiments made with the lower half only of the ventricle render this certain, the ganglionless and nerveless portion being affected in exactly the same way as the whole ventricle.

Atropia does not antagonise the action of chloroform on the ventricle; nor will the previous addition of atropia prevent the action of the chloroform. Ethidene dichloride affects the ventricle in exactly the same way as chloroform. Ether affects the heart in a far less degree than either chloroform or ethidene dichloride. Large doses accelerate the heart's action, and make each beat a little weaker; but the amount of work done is considerably greater, the increased frequency more than compensating for the diminished force of each contraction. Ammonia and ether, like chloroform and ammonia, are mutually antagonistic as regards the whole ventricle. Bromide of ethyl arrests the ventricle, acting on the muscular substance. It is far less powerful than chloroform, but more poisonous than ether.

Iodoform and ammonia are mutually antagonistic, as shown by their action on the ventricle. A fifth of a grain of iodoform nearly stopped the heart, and then ten minims of a one per cent. solution of strong ammonia restored the contractions, which were again arrested by another dose of iodoform. This was repeated on the same heart three successive times.

The importance of these observations cannot be over-estimated, throwing as they do a new light on the whole subject of antagonisms. Rossbach (Pflüger's *Archiv*, Band xxi, Heft 1, p. 1, 1879) contends that drugs are never mutually antagonistic. He maintains that, when a tissue is paralysed by one poison, it is impossible to stimulate it by another. For instance, whilst atropia, he says, antagonises pilocarpine, pilocarpine cannot antagonise atropia; atropia paralyses the sweat-apparatus, and pilocarpine is no longer able to stimulate it into action. He admits that after small doses of atropia pilocarpine can produce sweating, and this he explains by assuming that atropia paralyses first the nerve of the sweat-gland, and later the gland-apparatus itself. After a small dose of atropia the nerve only is paralysed, and then the pilocarpine can still stimulate the glandular cells; but a large dose of atropia paralyses the cells also, and then pilocarpine is powerless.

Dr. Ringer's recent experiments demonstrate the fallacy of this argument. The lower half of the ventricle consists of only one substance, muscular tissue, so that the antagonism cannot be due to an action on different structures.

WILLIAM MURRELL, M.D.

LEUF ON FRACTURES OF THE HUMERUS AT THE ELBOW.

In a paper on 'Additional Factors concerned in Fractures of the Humerus in the vicinity of the Elbow-joint' (*Annals of Anatomy and Surg.*, July 1881) Dr. A. H. Leuf of Brooklyn, New York, points out what he believes to be an important function subserved by the supinator longus and extensor carpi radialis longior muscles in these injuries. The supinator longus muscle, Dr. Leuf states, not only rotates the radius outwards after this bone has been rotated inwards, but it is also a flexor of the fore-arm upon the arm, and, moreover, has a strong tendency to perform lateral abduction of the fore-arm and increase its ulnar deflection. The actions of the extensor carpi radialis longior are essentially the same as those of the supinator longus, but less in degree, and, in addition to its actions in common with its supinator fellow, it extends the wrist. The performance of lateral abduction of the fore-arm by these two muscles is principally prevented by the muscular and ligamentous structures at the inner side of the elbow-joint, but the two abductors are assisted by the structures at the outer side of the joint, namely, the supinator brevis, the anconeus, and the other extensors. The pronator teres, when it contracts in the unfractured arm, not only pronates the hand, but tends also to produce flexion of the fore-arm on the arm. This same muscle, when the internal condyle, or the coronoid process, or both together, are fractured, draws the internal condyle, or coronoid process, or both, as the case may be, downwards and outwards.

In a fracture of the external condyle, the capitellum and external epicondyle being separated from the shaft of the bone, the group of extensor muscles attached to the external condyle tends to drag the external condyle downwards, but really does not do so, but simply turns it outwards in the cup-shaped cavity of the head of the radius which prevents downward displacement. The anconeus tends to rotate the external condyle backwards and

inwards, and also downwards. The supinator brevis draws the fragment downwards and forwards, and so partly antagonises the anconeus. The fibres of these two muscles crossing each other almost at right angles, when acting together, tend, like the extensors, to rotate the external condyle outwards. The pronator teres and the flexors arising from the inner condyle tend to adduct the fore-arm.

As to treatment of fracture of the external condyle, the most rational way to meet the above noted indications are, according to Dr. Leuf, as follows. 'Make full extension at the elbow and digital articulations, and keep the hand on a line with the fore-arm. This position relaxes the triceps, the anconeus, and the extensors attached to the external condyle. The position of the fore-arm, midway between pronation and supination, relieves the supinator brevis and pronator teres, thus lessening the tendency of the latter to separation of the outer articular surfaces of the elbow-joint by adduction of the fore-arm. Any tendency in the flexors, or in the pronator teres, to adduct the fore-arm is, in this extended condition of the upper limb at the elbow, wrist, and digital articulations, overcome by the action of the two adductors, aided by that of the extensors. The triceps and brachialis anticus have no effect whatever on a fractured external condyle, directly or indirectly, so long as the fore-arm is freely extended.'

Dr. Leuf considers in the second place fracture of the internal condyle—that is, separation of the trochlea and internal condyle from the shaft of the humerus. The flexor muscles and the pronator teres attached to this condyle tend, it is stated, to draw it downwards and inwards. This tendency causes simply a rotation, forwards, downwards, and inwards. The muscle acting most directly and most powerfully to produce the downward and forward displacement is the pronator, while the flexors are strongest in the effort at displacement downwards and inwards. The anconeus and supinator brevis tend to assist the abductors, and to draw the fore-arm upwards and outwards. It seems to Dr. Leuf that the treatment of fracture of the internal condyle is to extend all the joints from the elbow downwards, and to completely supinate, so as to make tense all the muscles attached to this condyle, thus causing them to keep the fragments down far enough to preserve a good ulnar deflection. The action of the brachialis, which tends to carry upwards the internal condyle, is overcome by that of the biceps, and the two adductors and the extensors also act in preventing this separation. The abductive power being much greater than the adductive power, it may seem that a superabduction would take place. Were all the muscles here involved equally irritated, then this would be the case. But the brachialis anticus is the only one directly irritated by the fragment, and consequently it is vigorously active in its attempts to force the troublesome condyle out of the way.

In fracture of both condyles, in order to obviate shortening of the injured arm and lateral separation of the fragments, Dr. Leuf recommends continuous extension and counter-extension. This may be done in the same way as in the lower extremity, *i.e.*, by means of the weight and pulley. A bandage should be passed around the lower end of the arm, so as to adduct it. The weight should be so adjusted as to adduct the fore-arm.

Dr. Leuf thus sums up the practical conclusions to be drawn from his observations. 'In fractures involving the elbow-joint, place the patient's arm on a pillow fully extended, and midway between pronation and supination, if the external condyle is the one fractured: if it is the internal condyle, then complete supination of the fore-arm, in addition to full extension (avoiding carpal over-extension) should be made. If both are involved, the treatment should be the same as if it were a fracture of only the internal condyle, with extension added. Passive motion should not be commenced until the danger of moving the fragments is over; previous to this the patient will move the arm sufficiently to prevent much articular rigidity. As time goes on and pain lessens, the good effects of rest accumulate, and the patient will move his joint freely. By keeping the parts at rest, the amount of callus will be less; consequently there will be less danger of implication of the musculo-spinal nerve, or its branches, or the ulnar, as they pass, the first in front, the second behind the elbow-joint.' W. Johnson Smith.

DR. DUDGEON'S SPHYGMOGRAPH.

A new sphygmograph has lately been introduced by Dr. Dudgeon. Its author claims for it many advantages; that it is small, portable, inexpensive, and easily adjusted, as it requires no wrist-rest; also that it is accurate in its registration of pressure, and gives a tracing always of the same amplitude, namely, fifty times that of the actual pulse-wave. In the mechanical movement of the smoked paper, and in the horizontal instead of vertical action of the pen, Dr. Dudgeon's sphygmograph resembles Pond's, but it differs from it, by the impulse being conveyed by means of a delicate steel spring, instead of through the tense diaphragm of a drum; the adjustments also are much simpler, and are less likely to become disarranged. It has, moreover, the advantage of being capable of being carried in the pocket, and easily adjusted.

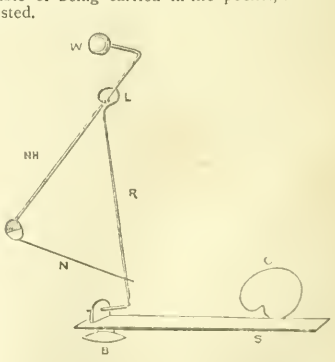

Fig. 1.—Principal parts of Dr. Dudgeon's sphygmograph, diagrammatically drawn.

Fig. 1 is a diagrammatic drawing of the principal parts of the instrument. To the horizontal spring, S, is attached an oblique rod, R, which slopes backwards at an angle of about 10 deg., and ends above in a loop, L. Through this loop passes a second metal rod, N H, in contact with the first, and sloping away

in the opposite direction at an angle of about 20 deg. This rod is supported above by being inserted into a horizontal metal bar (not figured), beyond which it is bent backwards at an angle less than 90 deg., and at the end of this short limb is attached a ball or counter-weight, W, which, if allowed full play, would swing the rod as many degrees one side of an imaginary vertical line passing through the point of suspension as it is now held to the other by the loop at the top of the rod R. Below the metal spring, at the spot where it is placed over the pulse, there is a metal biconvex button, B, loosely attached to the spring by two minute screws. When pressure is put on the spring by the revolution of the concentric, C, the edges of this button are lodged on the projecting borders of the framework of the instrument, an arrangement which may be advantageous or not, according to circumstances; it renders the registration of pressure more accurate; but in cases where the pulse is deeply placed it is a disadvantage, as it makes it impossible to bring the button down on the artery. Now, it will be readily understood that, the metal spring being raised by the pressure of the pulse, the oblique rod, R, tends to assume a vertical position; in doing so it releases its hold over the suspended, or what we may call the needle rod, N H, which therefore swings forward, carrying the needle with it, thus producing the up or percussion stroke of a tracing on the smoked paper, which is moved along beneath the needle at a very regular speed. On the pressure being removed the spring descends, and the oblique rod is brought back again to its sloping position, and in so doing it pulls the needle rod back with it.

Ingenious as is the construction of the little instrument, and much as its compactness and neatness recommend it for the needs of the clinical physician, it is yet wanting in that minute accuracy, in that exquisite rendering of delicate waves of motion, which alone can make sphygmographic tracings of clinical or scientific value. 1. There is a loss of mobility in transmitting the movements of the pulse-wave from one solid rod to the other, placed at an angle to each other. 2. There is a loss of power in overcoming the resistance of the needle to the carbonised paper on which it rests its whole weight. 3. There is a loss of time at the end of the up-stroke, in converting the movement forwards by means of the counter-weight at the end of the needle-rod, into a movement backwards by the action of one rod on the other. These mechanical defects translate themselves by the oblique feeble up-stroke, the rounded tops, and the ill-defined marking of the tidal and dicrotic waves of all the tracings taken with this instrument.

In order to test the capabilities of the instrument, I took tracings with it to compare with tracings taken at the same time, and from the same pulses, with Mahomed's modification of Marey's sphygmograph. The persons were in average good health, and the cases were taken at random. The tracings are figured below.

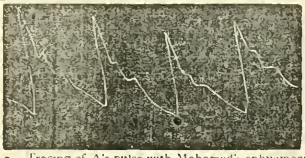

Fig. 2.—Tracing of A's pulse with Mahomed's sphygmograph. Pressure 2½ oz.

Fig. 3.—Tracing of A's pulse with Dudgeon's sphygmograph. Pressure 3 oz.

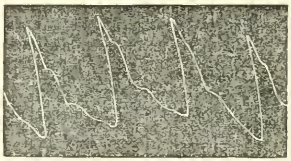

Fig. 4.—Tracing of B's pulse with Mahomed's sphygmograph. Pressure 3 oz.

Fig. 5.—Tracing of B's pulse with Dudgeon's sphygmograph. Pressure 5 oz.

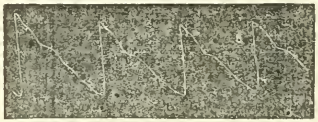

Fig. 6.—Tracing of C's pulse with Mahomed's sphygmograph. Pressure 1 oz.

Fig. 7.—Tracing of C's pulse with Dudgeon's sphygmograph Pressure 2 oz.

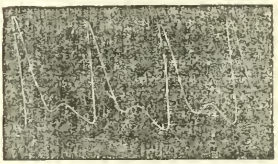

Fig. 8.—Tracing of D's pulse with Dudgeon's sphygmograph. Pressure 4½ oz.

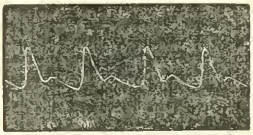

Fig. 9.—Tracing of D's pulse with Dudgeon's sphygmograph. Pressure 2½ oz.

The tracings taken with Dr. Dudgeon's sphygmograph, compared with those taken with Mahomed's, are illustrative of the errors pointed out above, in the former instrument. The normal pulses of A, B, and C, appear, when rendered graphically by

Dudgeon's sphygmograph, as those of extreme tension, and it will be observed that in each case an increased pressure was found necessary. In D's case, the pulse-wave was one of great amplitude; with the pressure of two ounces the pen was, in Marey's sphygmograph, thrown far beyond the inch-wide paper, and the pressure of four and a half ounces had to be put on to diminish the force of the percussion-stroke. The impulse and the dicrotic wave being exaggerated in this case, they were appreciated by Dudgeon's sphygmograph at a less pressure, though the rounded top but ill interprets the elastic condition of the artery. The loss of mobility in the transmission of the pulse-waves is shown in Fig. 3, in which tracing the well-marked tidal and aortic waves of A's pulse are merely indicated; the loss of power, by the oblique direction and feebleness of the up-strokes; and the loss of time, the most important of all the errors, by the rounded tops of the tracings, caused by the instantaneous arrest of the needle whilst the motor impulse is being transmitted from one rod to the other, and, probably, also by the friction of the needle leaning its own weight on the smoked paper. Nevertheless, though the instrument has in it inherent faults of construction, Dr. Dudgeon has made one step towards making sphygmography a daily clinical practice, by producing so compact, small, and inexpensive an instrument.

ALICE M. HART.

EXNER ON THE LOCALISATION OF FUNCTIONS IN THE HUMAN CORTEX CEREBRI.

A CONTRIBUTION on this subject was read by Dr. Exner before the Vienna Medical Society, on May 13 (*Wien. Med. Woch.*, 1881, No. 21). From several thousand cases in medical literature, Exner had collected 168 of pure lesion of the cortex cerebri, in which there were good histories of the patients and of the *post mortem* examinations. According to the necropsies, the seat of the disease was marked on plaster casts, with colours chosen to denote the morbid symptoms observed; thus facial paralysis was marked yellow, red denoted disturbance in the motor power of the upper extremity, etc. This collection was then methodically prepared. The negative cases were first investigated on diagrams showing the four principal views of the cerebral hemisphere; all those parts of the cortex which in all cases of the collection appeared injured, and by the lesion of which the function which was to be examined had not suffered, were marked down. In this way the cerebral surface was covered with drawings of cerebral lesions; that spot only remaining white which bore reference to the function in question.

By this method of percentages, Exner divided the cerebral surface into 380 arbitrary squares; each square was numbered, and then, in order to discover the importance of any portion of the brain for any function, it was determined: 1, In how many cases this square had been the seat of a disease; 2, In how many cases the disease of this square was contemporary with the interruption of the function under investigation. The results of this method were represented graphically, so that every square received a tint which corresponded to the percentage found. If lesion of a square, the functional disturbance which was to be examined, had taken place in all cases, this square was marked black; if only in one case, the square remained white.

The third method was to inquire which parts of the cerebral surface were diseased when a certain function appeared to be disturbed. This method is most of all subject to deception.

Exner now examined what parts of the cerebral cortex were altogether susceptible of lesion without functional disturbance, and found that this was the case chiefly with the frontal and the temporal lobes. Yet in this a remarkable difference between the two hemispheres was discovered. Since the right hemisphere provides for the left half of the body, and *vice versâ*, it was naturally expected that the cortical regions belonging to the right hand, which is much more expert than the left, would be more extensive. And, in fact, it was found that altogether the left hemisphere is much more cultivated with regard to motion than the right. In the left hemisphere the two central convolutions, the whole of the parietal and occipital lobes, have proved to be localities which must not be injured if the lesion is to pass without disturbing motion and motor power, while in the right hemisphere the two central convolutions alone represent these exceptional places. Therefore, supposing a disease to be limited to one hemisphere, the probability of its course being latent may be represented in the right hemisphere by 3, and in the left by 2. The cortical field for the upper extremity in the right hemisphere is situated in the upper part of the two central convolutions and in the paracentral lobule; while that in the left hemisphere extends considerably further backwards. That part of the cortex which has in all cases produced the same symptom is marked by Exner as the absolute cortical field of the respective function, and that which only in certain cases produces the symptom, he calls the relative cortical field. The cortical field for the upper extremity is very probably to be placed at a point in front of the fissure of Sylvius, in the lower part of which is to be sought the most intense portion of the cortical field, especially for the movements of the thumb. For the lower extremities, the portion of the cerebral cortex is smaller on the right hemisphere than on the left; and in the right hemisphere the main share falls to both central convolutions and to the paracentral lobule, while in the left hemisphere the corresponding cortical field extends as far backwards as the occipital lobe.

The relative cortical field of the lower extremity is just as large as that of the upper; although the absolute cortical field of the upper extremity is larger than that of the lower. The excess of extent which the cortical fields of the right hemisphere have over those of the left, is always found to be in a direction backwards, so that the cortical fields for the left extremities are much nearer the occipital lobe than those for the right, where they remain nearer the central convolutions. The cortical fields for the various functions varying in susceptibility of being affected, slight diseases will already have caused a disturbance in the region of the upper extremities before they reach the lower; there are slight lesions which cause complete paralysis of an upper extremity without greatly influencing the lower. This indicates that small lesions are not best adapted for the study of the localisation of the functions of the cerebral cortex. With this corresponds the fact, that the absolute cortical fields are surrounded by a grey zone of the relative cortical fields, so that it appears probable that the power of any cortical portion which is of high importance for a certain function, will, as regards this function, decrease gradually in all directions. To prove this, Exner made an examina-

tion of one particular function, at the same time excluding from his percentage calculation all those lesions which encroached on the absolute cortical field; whereby it was found that even in this case there was a gradual decrease of power of the cortical field, from the absolute cortical field towards the circumference, in the direction of the limits of the cerebral convexity. Diseases seated in the absolute cortical field will always produce far more intense symptoms than those in the relative cortical field.

Exner then turns to the cortical field for the facial nerve. He says that, as a rule, all muscles which in ordinary life are innervated simultaneously, are represented together in the cerebral cortex, whether they be provided for by the same nerve or not. Since we are able to move the right extremity independently of the left, this is innervated by the left hemisphere only; yet we cannot innervate the external rectus of one side without also innervating the internal rectus of the other. These two muscles are provided with nerves by each of the hemispheres, therefore disease of both hemispheres will cause deviation of both eyes to one side. Our voluntary movements, as regards looking, do not intend a turning of both eyes to the right, but only purpose to catch sight of objects on our right side; and therefore we turn the head together with the eye; and hence the muscles of the neck, together with those that turn with the eye to the right, are represented together in the corresponding part of the brain. Deviation of both eyes and of the head to one side is very frequent in lesions of one hemisphere. If it were merely accidental that, when both eyes deviate, the head also deviates to the same side, the calculus of probability would show that no fewer than 20,000 cases would be required to produce that number of deviations of the eye and the head together, which Exner has found in his collection of 168 cases.

As regards speech, Exner remarks that there is no absolute cortical field. The seat of word-deafness must be placed in the second temporal convolution. Amnestic and atactic aphasia is confined chiefly to the second frontal convolution. The centre of speech is situated in the left hemisphere only, that one which is the more cultivated in regard to motion. It is but natural that the movements of articulation should be directed by one hemisphere only. Speech would be considerably disturbed if, for instance, in pronouncing the letter 'j' (English 'y' in 'you') one corner of the mouth should be raised one-tenth of a second later than the other.

Exner then speaks of the cortical fields for the sense of sight, and of those for the tactile sensations, and finally remarks that he considers it a puerile conception, to imagine a single small portion of the body to have no other destination than to serve, as it were, as a handle for the soul in order to innervate a certain group of muscles. It is plain that the conditions at the cerebral cortex are much more complicated, and the corresponding cerebral portion where fibres enter certainly serves for a good many other purposes besides innervation.

DE LA HARPE ON ACUTE PULMONARY ŒDEMA.

Dr. De La Harpe (*Revue Méd. de la Suisse*) calls attention to this serious and rare accident, which appears to be little recognised. The observations which he publishes on the subject are incomplete, inasmuch as the examination of the urine was not made, and it probably contained albumen. But whether the cases were examples of albuminuric œdema or not, the facts do not the less present real interest. The first patient, aged 43, went out in cold and wet weather, and had scarcely gone a few steps, when she uttered a cry, and fell, seized with mortal suffocation. She died a very few instants afterwards. In her last moments, it was observed that there was easy and short respiration, accompanied with *râles*. It seemed that bubbling thick foam filled all the respiratory passages; moreover, foam of pure white colour, like eggs beaten into froth, escaped from the nostril and mouth. An examination made some days before, had shown that neither the lung nor the heart presented any appreciable lesion. Another patient, strong and robust, had already on different occasions been seized during the night with suffocation, which occurred unexpectedly, and without known cause. One evening he went to bed in perfect health. He was scarcely asleep, when he awoke with a bound, seized with sudden suffocation. He jumped out of bed, traversed the chamber, and seated himself in a chair, with the death-rattle in his throat. A few instants afterwards he was dead. He died with white froth escaping from the nostrils and mouth.

But cases of this kind are not always fatal. Dr. De la Harpe treated on a former occasion a patient who had analogous crises ten or fifteen times without succumbing to them. He went to bed in good health. Towards midnight, or one o'clock in the morning, he was awakened by a sudden depression, accompanied by mortal anguish. In a few minutes, the distress became extreme, and the aspect livid; death appeared imminent. The means employed always ended, however, by producing an improvement in the course of an hour. During all this time respiration consisted of an easy inspiration and a prolonged expiration, during which bubbling was produced throughout the chest, and seemed to fill the trachea. In a word, the patient, who was well a few minutes before, assumed the aspect of a moribund person suffocated by a frothy liquid, which filled the respiratory passages, and against which he struggled with all the energy of which his muscles were capable. The treatment consisted of hot dry applications and internal excitants, such as ether, ammonia, either pure or benzolated, or with aniseed in strong and repeated doses. But in the most violent crises these remedies did not suffice, and several times it was necessary to resort to a method which would seem to be of all means the least opportune—bleeding; nevertheless, it always succeeded, and immediately the crisis terminated by rapid eructations and forcible emissions of almost colourless urine. A crisis of this kind recurred twice or more frequently in the year. The patient was 65 years old when first taken. Towards the end of his life, these crises became frequent and less vigorous, intelligence became obtuse, strength diminished, and finally occurred a slight degree of cachectic, and the patient succumbed with a great deal diminishing of strength. Dr. De la Harpe thinks that in this case also there was acute œdema of the lung; but, as an examination of the urine was not made in these patients, the albuminuric origin of the symptoms may be considered probable.

MOORE ON THE OPIUM QUESTION.

The author's first paper on this subject will be found in the *Indian Med. Gaz.* for Sept. and October last. In the present pamphlet, he reasserts his opinion that the anti-opiumists greatly exaggerate the evil effects of opium; that opium in moderation is not injurious, but is even in some cases beneficial, and that it causes less injury to human beings than does alcohol. As a type of the literature in favour with the opponents of opium eating or smoking, may be mentioned a little work on the *Indo-British Opium Trade and its Effects*, by Theodore Christlieb, Professor of Theology in the University of Bonn. It is evidently written earnestly, by a gentleman of great learning who really believes in the injury which opium is said to inflict; but the statements it contains are so utterly unreliable that it is calculated to do much harm. For example, Dr. Christlieb says, 'The cultivation of opium in Malwa diminished agricultural products to such an extent that, in the neighbouring state of Rajpootana, 1,200,000 human beings died from starvation and the diseases caused thereby; a proof surely that there is more than a possible connection between the ever-recurring famine in India and the cultivation of opium.'

General Moore is enabled from his own personal experience to show the fallacy of this statement. During the first famine year he was Superintendent-General of Dispensaries and Vaccination in Rajpootana, and travelled on horseback nearly 1,500 miles through the famine-stricken tracts. The famine was caused by the almost total failure of the rains, especially throughout the western division of the province. Notwithstanding the charms and offerings of the local rain-makers, the skies remained as brass, and the earth as iron, until the time had passed for the sowing of the crops, and a treble famine of grain, grass, and water, commenced. Then, as their forefathers had done on previous occasions, the people of the west, driving their cattle before them, left the rainless country in three great streams. One division travelled north towards the Punjab, another went south towards Guzerat, but the greater stream went last over the Aravellis, through the comparatively less famine-stricken tracts of Meywar, into the promised land of Malwa; a land, notwithstanding its opium cultivation, overflowing with milk and honey in comparison with Marwar and its sterile plains. The people who thus left Western Rajpootana lived as best they could where they found pasture and water for their cattle, until the rains of 1879 commenced, when they streamed back again to their villages, and, hopeful for the future, prepared the ground and put in the seed for the next rain-crop. But when the crops were half grown a new calamity befell these districts. Locusts, numerous as the sands of the sea, appeared, and, in a few days, not a green thing was left. The growing crops were consumed, and the trees were stripped of their leaves as if subjected to a British winter. The number of the locusts, unless actually seen, can scarcely be imagined; the face of the earth was covered with them. For miles and miles the horse crushed through them at every step, whilst near the hedgerows and other sheltered spots the young were in vast heaps, looking at a distance like huge masses of large wasps. They even invaded the villages, and drove the people from their homes. Then, again, the wretched people emigrated, passing, as before, in three great streams into distant countries. But their flocks and herds were much diminished in numbers; the people, having exhausted their means in the previous year, became daily more and more debilitated. The rainfall, although not excessive, was an average, and the usual fevers, when they occurred, were tenfold more destructive than ordinary, the malaria acting on constitutions deprived of stamina by want and exposure.

Here, then, is certainly sufficient to account for any mortality without reference to opium cultivation. As a matter of fact, opium proved the salvation of many by enabling them to bear up against hardships they could not otherwise have withstood. To a certain extent it supplied the place of food and drink, and averted to some degree a prophylactic influence over the malarious fever which prevailed after the rains of the second year of famine.

[There can be no doubt that the description of the evil effects of opium-eating and opium-smoking have been greatly exaggerated. For a full discussion of the subject, see *Brit. Med. Jour.*, May 15, 1880, and vol. i, 1881, pp. 827, 1025, *et seq.*—*Rep.*]

William Murrell, M.D.

BOTKIN AND ALFAYEF ON CONVALLARIA MAJALIS IN CARDIAC NEUROSIS.

Professor Botkin's *Weekly Clin. Gaz.* (St. Petersburg) contains the following.* On February 3, 1881, at the ambulance of Professor Botkin, a woman applied for medical aid. She was aged 30, of medium size, thin, and anæmic. She complained of constant dyspnœa, palpitation, and pain about the heart, radiating into the left arm, and down, along its internal aspect, into the fingers. Exacerbations of these symptoms took place several times a day, and sometimes in the night. She was unable to work and losing flesh; could sleep but little, and only in a sitting posture. She had suffered for ten months, although she had been constantly treated by physicians. The cause of her illness was unknown to her. Her thorax was normal; breathing superficial, 48. Radial pulse small, 116; whilst the carotids and aorta pulsated violently. Her hands trembled very much. Immediately below the left clavicle there was a very noticeable dulness, which extended along the left parasternal line, and which over the third rib merged completely into the absolute dulness of the cardiac region, the latter extending toward the right as far as the median line. The heart's impulse was vigorous, and in the normal situation. The second heart-sound was more pronounced than normal. The respiratory murmur along the parasternal line was weak and short, but improved after deep breathing. On palpation of the abdomen, the right kidney was discovered to be painful and movable.

Professor Botkin pronounced the case one of neurosis of the cardiac apparatus, taking the form of angina pectoris, and which had already caused a change in the dimensions of the heart; thus its diameter was increased so as to reach the median line, and increase in the size of the left auricle was indicated by the dulness along the left parasternal line. In consequence of the insufficient evacuation of these parts of the heart, there were abnormal blood-supply to the lungs, and dyspnœa. The cardiac neurosis in this case was probably due to reflex influence from the abnormal situation of the right kidney, which not only was irritated itself, but kept up an irritation of the adjacent organs.

* Translated for the *Chicago Medical Review*, by Dr. R. D'Ary.

The patient was ordered to apply clay poultices to the cardiac region, to take two or three warm baths a week, and to wear a special belt to retain the kidney in its proper position. Internally she received: R. Camph. monobromate of sulphur, 3j; chloral-hydrate, 3ss; powder of acacia and white sugar, āā 3j. To be made into sixty pills; two to be taken three times a day. On the 10th there was no improvement. Examination showed only slight sensitiveness of one kidney. The patient was now given tincture of convallaria majalis, ten drops four times a day. The baths and belt were continued. On the 17th the patient reported that she obtained relief from the very first doses of the medicine, and now felt well. She could sleep in the recumbent position, had no more palpitation or dyspnœa. Pulse, 80-90; respiration, 22. The parasternal dulness was less marked. Cardiac dulness now extended only as far as the left parasternal line. Pulsation of the aorta was still too violent, but less than before. The heart tones were clear, with slight accentuation of the second sound. When she breathed deeply, there was vesicular murmur, though rather weak, along the parasternal line, where the dulness was. The right kidney was less sensitive. The whole success in this case of rather complicated cardiac neurosis was evidently due to the tincture of convallaria, since the remedies previously employed had no effect. Our usual cardiac remedies—digitalis and adonis vernalis—says Professor Botkin, in the vast majority of cases of cardiac neurosis have no effect whatever, whilst convallaria generally acts like a specific. But in these cases it should be used in the form of an alcoholic tincture, not in infusion.

The *Vratch*, for June 16, also contains an article on Convallaria majalis, by Dr. Alfayef, military surgeon in the Caucasus. The plant grows plentifully there, in the mountains, and has a great reputation among the people as a remedy for intermittent fever. Dr. Alfayef experimented systematically on thirty-eight typical cases of that fever, but with only indifferent success. The plant will therefore never rank among the remedies for this disease, but the experiments are very interesting from the fact that they throw a great deal of light on the mode of action, dose, etc., of this potent remedy, which we here reproduce in short. According to popular precedent, the experiments were made with the flowers only, leaving it an open question whether the therapeutic effect of the root and stem is identical with that of the flower.

The alcoholic tincture was found to be the most convenient as well as the most potent form of the drug. The tincture used was of the strength of four ounces of the flowers to the pint of dilute alcohol. In its mode of action it is very peculiar; when doses of twenty or thirty drop were given, the pulse became slower and less compressible. No unpleasant effects were noticeable, although the quantity of each dose finally increased to half a fluid ounce. The results of these experiments, as concerning the pulse, in substance are expressed by Dr. Alfayef as follows. In small doses (five to ten grains of the powdered flowers, or twenty or thirty drops of the tincture), the remedy invigorates the pulse much more noticeably than in large doses (one drachm of the powder, or one-half fluid ounce of the tincture).

Large doses seem to act simply as regulators of the pulse, no matter what was its preceding state. 'As to the diuretic effects of the remedy, I have observed that, while small doses had a well-marked influence in that direction, this influence was not increased from larger doses. For instance, the following case. Simultaneously with tertian intermittent, a patient was suffering with acute hydræmia, general dropsy, and stasis of blood in the lungs, the pulse being 120, weak. He was ordered to take tincture of convallaria, twenty drops, twice a day. No other remedy was used. In five days his condition was much improved; the pulse became stronger, the breathing freer, the quantity of urine had increased fourfold; but the intermittent showed no symptoms of abatement, the paroxysm being even more severe than before.

'I am, therefore, inclined to think that the convallaria acts as a diuretic only as it stimulates the heart's action, and consequently increases lateral blood-pressure, being similar, in this respect, to digitalis. But its great advantage over digitalis is, that it is quite harmless, even in over-doses.

'I have also tried the convallaria (in small doses) in pneumonia, and once in a case of dropsy from fatty degeneration of the heart, and obtained a retardation of the pulse, and, in the latter case, an increase in the quantity of urine voided. I think it, therefore, likely that the convallaria may with advantage be substituted for digitalis, wherever the latter is indicated.'

KLEIN ON THE ETIOLOGY OF MILIARY TUBERCULOSIS.

Dr. E. Klein (*Practitioner*, Aug. 1881), discusses, with his customary thoroughness and ability, in his recent paper, the evidence, still, however, somewhat incomplete, afforded by modern pathology, which favours the view that miliary tuberculosis (using the term in the sense as defined by Virchow, and altogether distinct from caseous inflammation and scrofula) is a specific infectious disease. This evidence may be conveniently stated under three heads.

1. Evidence shows that miliary tuberculosis is communicable from one human being to another. (*a*). The disease may be inherited, though this is not a distinguishing character of infectious diseases, being associated with certain morbid states distinct from infectious disease, such as cancer or gout, yet, when combined with other features connected with specific disease, it has a certain value, even if an indirect one, more particularly when inheritance is considered in relation to a notoriously infectious disease, syphilis. If the specific infectious character of miliary tuberculosis be admitted, then the so-called special delicacy and vulnerability of the tissues (the only kind of inheritance admitted by some) is simply an accidental and secondary condition, the specific *materies morbi*, or virus of tuberculosis, being the primary or essential thing. Nothing definite is known as to the period of incubation of tuberculosis. (*b*). The disease, again, may be acquired in various ways. It may be communicated from husband to wife, or *vice versâ:* many instances of this kind are on record. Or it may be communicated from patient to attendant, or *vice versâ* (see vol. xi of *Glasgow Med. Jour.*, p. 168). Cohnheim holds that the virus enters the organism most commonly through the air-passages, producing pulmonary or laryngeal tuberculosis; thence it spreads to the bronchial glands and the system at large; or it may enter by the alimentary canal, being swallowed either in food, or in tuberculous sputa, spreading to the mesenteric

glands, peritoneum, etc.; or it may attack the urogenital apparatus, or may pass from the upper nasal cavity through the cribrous lamina of the ethmoid bone to the pia mater.

2. We have evidence that tuberculosis is communicable from man to animals, and from animal to animal, in many well-known series of inoculation experiments. In the case of the rabbit and guinea-pig, however, disseminated tuberculosis occurs after inoculation with non-tubercular as well as with tubercular matter, provided they set up inflammation with caseous products; in other animals, in which inoculation did not produce inflammation with caseous products, no dissemination tuberculosis ensued. In Cohnheim and Salomonsen's experiments, a perfectly fresh piece of tuberculous tissue from the human subject was introduced into the anterior chamber of the eye of a rabbit or guinea-pig; in a short time the first irritation passed off, the bit of tissue diminished gradually in size, and then disappeared; after an incubation-period of three weeks, minute gray tubercles appeared suddenly on the iris, which increased in size and underwent caseation. This result followed only and exclusively after the introduction of real tubercular matter. This experiment also furnishes a test, by means of which real tubercular matter may be distinguished from all other caseous, secondary, and chronic inflammatory products, especially scrofula: the tuberculosis of the iris in rabbits and guinea-pigs is produced by human tubercle, and by nothing else. The inhalation experiments of Tappeiner and of Bertheau gave analogous results; nothing but tuberculous materials produced tuberculosis. There are also on record many observations of the transmission of tuberculosis by feeding.

3. There is to be considered evidence as to the nature of the *materies morbi*. The view that miliary tuberculosis depended on the absorption of matter from a caseous focus was supported mainly by inoculation experiments on rabbits, in which tubercular and non-tubercular matter were equally effective. But it was afterwards proved that, for the production of miliary tubercle of the iris with subsequent general tuberculosis in rabbits, real tubercles (grey or caseous) must be employed. It follows, then, that the *materies morbi* is present in the grey tubercle, and is not present in all and every caseous matter, but only in that derived from real tubercles; as regards bovine tuberculosis, it has been shown that the virus is present also in the blood, milk, flesh, and other tissues, but whether this is the case with regard to human tuberculosis has not yet been proved. It has finally been asserted that human tubercular pus contains minute micrococci; that no result follows inoculation with the clear serum of tubercular pus which had been previously freed from solids; that inoculation of this sediment produces the usual result; and that the aqueous humour of an eye affected with tubercle of the iris is effective as an inoculating fluid, only after these tubercles have begun to undergo caseous degeneration.

KLEBS ON THE BACILLUS OF ENTERIC FEVER.

In the *Arch. für Exper. Path. und Pharm.*, Band xii, p. 234, Professor Klebs published some preliminary observations on this point, and he now (*Arch für Exper. Path. und Pharm.*, Band xiii, Heft 5, 6) gives a full account of his observations and experiments. Professor Eberth has, meanwhile, published (Virchow's *Archiv*, Band lxxxi, p. 58) views in many points confirmatory of those of Professor Klebs.

Professor Klebs' results may be summarised as follows.

1. The bacillus typhosus occurs constantly in the intestinal infiltrations of enteric patients, as also in those anatomical alterations considered secondary—in the mesenteric glands, for example, the larynx, the lungs, the pia mater, the kidneys. Professor Klebs considers that, in some epidemics, the lungs are by inhalation primarily affected, or that at least the disease in them runs parallel with that in the intestine. In such cases, there is œdema with collapse of lung, mostly in the posterior part of the lower lobe, not dependent on meteorism, because he finds it present when meteorism is entirely absent. Professor Klebs delineates a case of this nature.

2. The bacillus typhosus forms at the height of its development long undivided threads containing spores; but, in its earlier stages, it appears as short rods containing terminally placed spores. The thread-form is found in close mycelia in the tissues, and also in more simple parallel or spiral arrangement in the interior of blood-vessels. The bacillus differs from the organisms of ordinary putrefaction frequently found in the intestinal contents, first in its greater fineness and its appearing as rods and threads; secondly, in the fact that it penetrates the tissues, which the coarser varieties never do.

3. Where the bacillus typhosus collects, the cells of the tissue degenerate and disappear. Sometimes, however, the cells develop rapidly, overcoming the bacillus, and then the bacillus may spread by means of the blood-vessels and so reach the kidneys, pia mater, heart, and lungs, although these last may be primarily affected.

4. Micrococci are developed only in isolated cases, and are simply complications of the bacillary development, being associated with the septic process.

5. From experiments in which he injected subcutaneously in rabbits fluids containing the bacillus typhosus, cultivated with most painstaking precautions, Professor Klebs considers himself justified in the conclusion 'that the bacillus typhosus, under favourable conditions, developes in the mucous membrane of rabbits into the same thread-mycelium as can pervade the whole mass of a typhoid infiltration, and fill the blood-vessels in the human intestine. The histological changes in the two cases correspond, and still further strengthen the conclusion that this organism is the essential cause of the typhoid process.'

With regard to the treatment of enteric fever, Professor Klebs's views are naturally based on the results above enunciated. If enteric fever really depend on the development and migration of an organism, the therapeutic indication is to check the growth of this organism. At the present time, treatment in enteric fever is mainly directed towards a reduction of the temperature. While admitting that repeated cold baths to a certain extent accomplish this, he has found them utterly fail in certain epidemics, and he points out that the interesting cases published by Strube and Fraentzel (*Zeitschr. fur Klin. Med.*, Band ii, Heft 2) of severe enteric fever without high temperature, show an exclusive attention to the temperature to be unjustifiable. Antimycotics, when used in the disease, have been regarded as antifebrile; but Immerman, from his

favourable results with salicylic acid, recommends thorough disinfection of those probably infected. The statistics of three epidemics given by Jahn show a lower mortality and shorter average duration of the disease in that treated by salicylic acid or salicylate of soda (℥j to ℥iss daily) than in the other two. Salicylic acid seems to exert no effect on typhoid pneumonia, from which the fatal cases died; but the delirium disappears rapidly, pointing to an accumulation of the remedy in the central nervous system. The fall in temperature is gradual, and at first it may even rise higher, but in that case there are marked remissions. As an antimycotic, Professor Klebs recommends benzoate of magnesia (℥v daily), with inhalations of a five per cent. solution of benzoate of soda, with which he would combine cold compresses for the abdomen, and occasional cold baths. JAMES ANDERSON, M.D.

GARDINER ON FORMULÆ FOR DISGUISING DISAGREEABLE FLAVOURS.

Extensive use is made in America of 'elixirs' in prescribing. Under this name are included a great variety of formulæ for the administration of well-known remedies in such a manner as to render them palatable in flavour, or at least to cover and disguise the disagreeable flavour of different drugs. The use of a single plain elixir for this purpose is inefficient: thus rose, in combination with other flavours, answers admirably for calisaya bark alone, but, if more be added, becomes disgusting to most persons; and it is entirely out of harmony with the chalybeate effect upon the palate. Each particular drug needs, therefore, to be studied with reference to the flavour, or combination of flavours, best adapted to cover its disagreeable features, without in any case interfering either with the therapeutic action or with the chemical compatibility of the mixture. There is always a danger in stereotyping these complicated preparations when the formulæ are not at hand; but the advantages of being able to prescribe, in a form which is positively pleasing to the patient and grateful to the stomach, are not to be undervalued, either in respect to the delicate patient, to young patients, or to the prescriber. In respect to the following formulæ, which have all been largely and practically tested, Mr. R. W. Gardiner says (Martin's *Chemists' and Druggists' Bulletin*, July, 1881):

It will be observed that the elixirs of calisaya bark and combinations are prepared from the purified salts of the alkaloids, and not from cinchona bark direct. The view taken of this subject was that, since cinchona bark contains certain alkaloids in varying proportions, hence, an elixir made from definite proportions of purified alkaloids would be more uniform in composition; that the preparatory extraction of the alkaloids from the bark was a troublesome, and, as usually performed, a very incomplete process, because not carried far enough to purify, and when accomplished gave such varying results, due to difference of alkaloidal yield of different samples of bark, that no two lots of elixir were identical in strength; that the alkaloids represented all the medicinal value of the bark suited to utilisation in elixirs; and, finally, that the round-about process of detainating the crude bark to get at impure alkaloids was not only more expensive, time being considered, but also less satisfactory in every sense than to use the purified salts of the alkaloids in proportions identical with careful essays of best specimens of calisaya bark.

In preparing the several elixirs of pepsine in combination with bismuth, iron, etc., Boudault's pepsine has been found to answer better than that prepared by Scheffer's method, as the latter contains chloride of sodium and free hydrochloric acid, which decompose the bismuth salt.—[Finzelberg's pepsine would probably be found even better for the purpose.]

It is quite possible to prepare pharmaceutically satisfactory elixirs of these combinations, by using the French pepsine, and by bringing the elixir to exact neutrality when finished. Therapeutically, these combinations cannot but prove unsatisfactory, as the soluble salt of bismuth requires alkalinity or neutrality for solution, while the pepsine is only active in the presence of free hydrochloric acid; by compromising these antagonisms upon the basis of neutrality, the two substances may, with intelligent management, be kept in permanent solution—if not unduly exposed to the air—but at the loss of the activity of the pepsine, unless it meets, when taken, a sufficient quantity of this acid in the stomach to render it active, which is not probable.

It has been stated that pepsine in the presence of bismuth is changed so as to be no longer capable of digestive action, even if hydrochloric acid be added. Some experiments, made with a view to ascertain if this be so, seem to show that such change, if it occurs at all, is by means immediate, as the digestion of coagulated albumen was effected by a preparation of bismuth, pepsine and strychnia several months old, upon the addition of hydrochloric acid. I regret that I took no notes of these experiments; but will endeavour to renew them and report results at a future time. In all elixirs containing either the alkaloids or their salts, I have found it indispensable to add a small proportion of citric acid, which must be accurately neutralised upon the completion of the preparation by ammonia, if iron or bismuth salts be present. If the acid be not used, the alkaloids or their salts will deposit or crystallise out of solution upon standing. And if elixirs containing pyrophosphate of iron be left acid, the iron salt deposits. In preparing elixirs containing the alkaloids or their salts, after having made the alcoholic flavoured vehicle (reserving a portion of the alcohol), I put the citric acid in a suitable vessel, and add a sufficient quantity of boiling water. When the acid is dissolved, I add the alkaloids and as much alcohol as I have used of boiling water, and stir until the alkaloids are completely dissolved; I add this to the elixir, rinsing the vessel with it, and stir until well mixed.

I have used phosphate of lime with satisfaction to effect the combination of essential oils, tinctures of resinous substances, etc., in the preparations of the flavouring vehicles for elixirs; as this substance is insoluble, no precipitation of alkaloids, by reaction, is possible. In the elixir of phosphate of iron, quinia, and strychnia, the tribasic ferric phosphate, in combination with citrate of ammonia, is used. It is more stable, and less acted upon by light, than the pyrophosphate. The addition of about twelve per cent. of glycerine to this elixir favours the harmony of its constituents.

Elixir of coca contains a small quantity of caustic soda to develop the peculiar action of this drug.

Elixir or wine of pepsine, when not in combination with other substances, as bismuth, etc., is prepared from saccharated pepsine, and a sufficient ex-

cess of hydrochloric acid is added to insure digestive action.

Wine of beef and combinations are prepared with pyrophosphate of iron instead of ammonio-citrate, as the ferruginous taste is less perceptible, and the salt is in better keeping with the phosphates of beef.

FORMULÆ.

1. *Curaçoa Flavour.*—Tinct. Curaçoa, comp., of 8 fl. oz.; tinct. of fresh orange peel, 16 fl. oz.; orange-flower water, 12 fl. oz.; syrup, 70 fl. oz.; alcohol, 72 fl. oz.; water, 2 pints. Mix.

2. *Tincture of Fresh Orange Peel.*—Outer rind of fresh oranges, 8 oz.; alcohol, q. s.; percolate, 1 pint.

3. *Compound Tincture of Curaçoa.*—Ground curaçao, 24 oz.; ground cloves, 1 oz.; ground canella, 1 oz.; alcohol, q. s.; percolate, 4 pints.

4. *Tincture of Fresh Lemon Peel.*—Outer rind of fresh lemons, 16 oz.; alcohol, q. s.; percolate, 2 pints.

5. *Citro-ammoniacal Solution of Ferric Phosphate.*—Phosphate of soda, 7½ oz.; solution of tersulphate of iron, 7 fl. oz.; citric acid, 2 oz.; aqua ammoniæ U. S. P., 5½ fl. oz., or sufficient to neutralise. Dissolve the phosphate of soda in sufficient water, and decompose with the tersulphate of iron; wash and drain. Combine the acid and ammonia and add sufficient to the phosphate of iron to dissolve under the same conditions as the officinal pyrophosphate. Evaporate by gentle heat to one pint. This solution contains 50 per cent. of the salt.

6. *Solution of Citrate of Ammonia.*—Citric acid, 16 oz.; aqua ammoniæ U. S. P., q. s. to neutralise. Mix.

7. *Citro-sodic Solution of Ferric Chloride.*—Solution of chloride of iron, 3 pints; citric acid, 54 oz. 197 grs.; crystallised carbonate of soda, 100 oz. 5 grs.; water q. s. Dissolve the carbonate and acid in 6 pints of water; mix this solution gradually with the iron solution, and add water to make 12 pints.

8. *Solution of Saccharated Pepsine.*—Saccharated pepsine, 3 oz. 310 grs.; water, 1 pint; hydrochloric acid, C. P., 3½ fl. dr.; glycerin, 4 fl. oz.

9. *Elixir of Ammonio-citrate of Bismuth.*—Ammonio-citrate of bismuth, 2 oz. 64 grs.; oil of orange, 1½ fl. dr.; orange-flower water, 4 fl. oz.; phosphate of lime, q. s.; extract of vanilla, ½ fl. oz.; alcohol, 1½ pints; syrup, 1 pints; water, q. s. Mix, making one gallon.

10. *Elixir of Blackberry-Root.*—Fluid extract of blackberry, 10 fl. oz. 320 min.; tincture of orange-peel, 2 fl. oz.; oil of orange, 15 min.; oil of cassia, oil of anise, oil of coriander, 8 min. each; oil of nutmeg, oil of rose, 4 min. each; extract of vanilla, 2 oz.; phosphate of lime q. s.; syrup, 3 pints 4 oz.; alcohol, 1 pint 12 oz.; water, q. s. Make 1 gallon.

11. *Elixir of Bromide of Calcium.*—Bromide of calcium, 10 oz. 320 grs.; compound elixir of orange, q. s. Make 1 gallon.

12. *Elixir of Bromide of Potassium.*—Bromide of potassium, 10 oz. 320 grs.; compound elixir of orange, q. s. Make 1 gallon.

13. *Elixir of Bromide of Sodium.*—Bromide of sodium, 10 oz. 320 grs.; compound elixir of orange, q. s. Make 1 gallon.

14. *Elixir of Calisaya Bark.*—Tincture of orange-peel, 2 fl. oz.; oil of orange, 15 min.; oil of cassia, oil of anise, oil of coriander, 8 min. each; oil of nutmeg, oil of rose, 4 min. each; extract of vanilla, 2 oz.; syrup, 3 pints 2 oz.; alcohol, 1 pint 15 oz.; citric acid, 20 grs.; sulphate of quinia, 130 grs.; sulphate of cinchonia, 65 grs.; phosphate of lime, q. s.; sugar colouring, 10 min.; water, q. s. Make 1 gallon.

15. *Elixir of Calisaya and Iron.*—Tincture of lemon-peel, 1 fl. oz. 6 dr.; oil of orange, 65 minims; oil of lemon, 30 min.; oil of cloves, oil of cassia, oil of nutmeg, 6 min. each: alcohol, 1 pint 5 oz.; pyrophosphate of iron, 2 oz. 64 grs.; sulphate of quinia, 130 grs.; sulphate of cinchona, 65 grs.; phosphate of lime, q. s.; syrup, 3 pints; citric acid, 25 grs.; aqua ammoniæ, q. s.: glycerine, 1 oz. 6 dr.; water, q. s. Make 1 gallon.

16. *Elixir of Calisaya, Bismuth, and Iron.*—Ammonio-citrate of bismuth, 2 oz. 64 gr.; water q. s. to dissolve; elixir of calisaya and iron, q. s. Make 1 gallon.

17. *Elixir of Calisaya, Iron, Bismuth, and Strychnia.*—Citrate of strychnia, 9 grs.; boiling water, alcohol, ½ oz. each; dissolve, filter, and add: elixir of calisaya, iron, and bismuth, q. s. Make 8 pints, 7 oz.

18. *Elixir of Calisaya, Iron, Pepsine, and Bismuth.*—Pyrophosphate of iron, 2 oz., 64 grs.; boiling water, q. s.; dissolve and add: elixir of pepsine, bismuth, and calisaya, q. s. Make 8 pints.

19. *Elixir of Cinchona, Iron, and Strychnia.*—Citrate of strychnia, $10\frac{6}{15}$ grs.; boiling water, alcohol, ½ oz. each; dissolve, filter, and add: elixir of calisaya and iron q. s. Make 8 pints.

20. *Elixir of Cinchonidia, Iron, and Strychnia.*—Ferric phosphate (citro-ammon.), 2 oz. 64 grs.; sulphate of cinchonidia, 1 oz. 32 grs.; citrate of strychnia, $8\frac{1}{15}$ grs.; citric acid, 20 grs.; tincture of orange-peel, 1½ fl. oz.; extract of vanilla, 1½ fl. oz.; phosphate of lime, q. s.; oil of orange, 60 min.; oil of cassia, oil of anise, oil of coriander, 30 min. each; oil of nutmeg, 10 min.; syrup, 36 fl. oz.; glycerine, 10 fl. oz.; alcohol, 26 fl. oz.; water, q. s. Make 8 pints.

21. *Elixir of Coca Leaves.*—Fluid extract of coca, 21 fl. oz. 160 min.; alcohol, 13 fl. oz.; glycerine, 5 fl. oz., curaçoa flavour, 5 fl. oz.; sherry wine, 8 fl. oz.; solution caustic soda (sp. gr. 1.22), ½ fl. oz.; compound elixir of orange, q. s. Make 8 pints.

[*To be continued.*]

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1. Williams, H. F.— Pilocarpine Muriate in Diphtheria. (Proceedings of the Medical Society of the County of Kings, August 1881.)

2. Leyden. — On the Indications for the Administration of Digitalis. (*Deutsche Med. Zeitschr.*, 23, 1881.)

3. Anderson, McCall. — Cases illustrative of Influence of Nitro-Glycerine in Angina Pectoris, etc. (*Glasgow Med. Jour.*, July 1881.)

4. Rochester, T. M. — Grindelia Robusta as a Remedy in Asthma. (*Ther. Gaz.*, June 1881.)

5. Riopel, E. E. — On Pulque. (*Therap. Gaz.*, June 1881.)

6. Riva.—A Severe Case of Chronic Gastric Catarrh treated by Washing out the Stomach. (*Rivista Ital. di Terapia ed Igiene*, and *Lo Sperimentale*, August.)

7. Mosso.—Treatment of Neuralgia and Rheumatism by Electricity and Iodoform. (*Gaz. Med. de Termo.* and *Lo Sperimentale*, August.)

8. Ciaramelli.—Hypodermic Injection of Citrate of Iron. (*Lo Sperimentale*, July.)

9. Curci.—The Action of Berberin. (*Lo Sperimentale*, August.)

10. Parona.—The Treatment of Ankylostomum by Ethereal Oil of Male Fern. (*Gaz. delle Clin.*, and *Giorn. Internaz. delle Scienze Med.*)

11. Coltmann, R.—Atropia as an Antidote to Opium. (*Phil. Med. and Surg. Rep.*, June 25.)

12. Stehman, H. B.—Joborandi in Mastitis. (*Ibid.*)

13. Smith, G. K.—A Method of using Electricity in Diphtheria. (*Proceedings of King's County Med. Soc.*, August 1881).

14. Ott, I.—The Active Principle of Jamaica Dogwood. (*Archives of Clin. Med.*)

15. Brakenridge, D.—Action and Use of Citrate of Caffein as a Diuretic. (*Edin. Med. Jour.*, August 1881.)

16. Soltmann.—Treatment of Cholera Infantum by Resorcin. (*Breslauer Aerzth. Zeit.*)

17. Shinn.—Benzoate of Calcium in Albuminuria. (*Phila. Med. Times*, August 1881.)

18. Martin.—Parsley as a Means of Suppressing the Secretion of Milk. (*Bull. Géner. de Thérap.*, August 30.)

19. Kaposi.—Beta-naphtol in Skin Diseases. (*Wien. Med. Woch.*, May 28, June 4 and 11, 1881.)

20. Stewart.—Coto-bark in the Sweating of Phthisis. (*Canada Lancet*, July.)

21. Costelli.—The Treatment of Scurvy by Hydrotherapy. (*Rivista Clin. di Bologna*, Jan. 1881.)

22. Wilson.—Sulphurous Acid Injections in Gonorrhœa. (*Lancet*, July 1881, p. 205.)

23. Stowers.—Chrisma as a Parasiticide. (*Brit. Med. Journ.*)

24. Smith.—Olive-oil in the Treatment of Gall-stones. (*Lancet*, August, p. 351.)

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1. *Williams on Pilocarpine Muriate in Diphtheria.*—Dr. Williams (*Proceedings of the Medical Society of the County of Kings*, August 1881) tells us that his attention was drawn to the subject by the publication of a paper by Dr. Geo. Guttmannn of Cronstadt, whose formula he has adopted. It is as follows:—Muriate of pilocarpine, gr. ⅓—⅔; pepsine, gr. 1—1½; hydrochloric acid, m. iii; distilled water, ʒ ii: a teaspoonful every hour for children. Dr. Williams gives details of ten cases, his series comprising five of diphtheria, three of scarlet fever, with severe throat-complications, one of acute tonsillitis, and one of follicular tonsillitis. The results were apparently satisfactory, the membrane, in the cases of diphtheria, being readily detached.

2. *Leyden on the Indications for the Administration of Digitalis.*—Digitalis may be administered with advantage in acute febrile diseases, in hæmoptysis and other hæmorrhages, and in cardiac affections. It is not very safe as an antipyretic, as there is always danger of sudden collapse. It is difficult, says Professor Leyden (*Deutsch. Med. Zeitsch.*, No. 23, 1881) to lay down definite rules for its administration in cardiac affections, as every case must be judged on its own merits. It is specially indicated in mitral and aortic disease when there is diminished arterial tension, with dyspnœa and scanty secretion of urine. In these cases it is best given in small doses, of from one-quarter to one-fifth of a gramme daily. Should these doses fail, it is quite an open question whether it is advisable to give more. In hypertrophy and dilatation of the left ventricle, with lung-mischief, digitalis is a very uncertain remedy. It is a feeble diuretic, and only succeeds when there is a feebly acting left ventricle. Digitalis is best given in the form of tincture or infusion. Probably, the best substitute for digitalis is squills. It may be given in combination, or, better still, digitalis may be given first, with squill to follow.

3. *Anderson on Nitro-Glycerine in Angina Pectoris.*—The solution of nitro-glycerine employed was the 1 per cent. alcoholic solution. In a case of well-marked angina pectoris, described by Dr. McCall Anderson (*Glasgow Med. Jour.*, July 1881), the doses was gradually increased from a drop three times a day to fifteen drops six times a day. Before the treatment was commenced, the patient could not walk more than three hundred yards without pain, but when he left the hospital, at the expiration of about three weeks' treatment, he could walk at least half a mile at an easy pace on the level without discomfort, and when the pain began to make its appearance, he could put a stop to it at once, and continue walking, by swallowing a dose of ten drops. William Murrell, M.D.

4. *Rochester on Grindelia Robusta as a Remedy in Asthma.*—Dr. Rochester, in a paper recently read before the Medical Society of the County of Kings, Brooklyn, records his experience of the use of grindelia robusta in the treatment of asthma. The author (*Therap. Gaz.*, June 1881) has notes of over sixty cases in which the remedy has been employed, and has given it in as many more, of which he has kept no record. Most of the cases were of long standing, and many of them were dispensary patients, whose hygienic conditions were anything but good, and whose occupations were unfavourable. The grindelia was found to be equally efficacious, whether employed in simple spasmodic asthma, or in bronchial asthma. It may be given either in half drachm doses of the fluid extract every quarter of an hour during the attack, until the paroxysm subsides, or in from fifteen to twenty drop doses in the intervals. Grindelia robusta often proves of great benefit in hay asthma; in one case in particular, it afforded relief after almost every remedy had failed. Dr. Squibb, in commenting on this paper, said that grindelia squamosa was often used as a substitute for grindelia robusta, although very different properties were attributed to the two species. There was reason to believe that the fluid extract was as often made from one species as from the other [Grindelia robusta is undoubtedly a valuable remedy; and succeeds admirably in some cases of asthma, although in others it signally fails. The great difficulty is to get it good, for much of the so-called grindelia sold in this country is not grindelia robusta at all. The liquid extract prepared by Messrs. Parke, Davis, and Co., is a reliable preparation. In a case of asthma, which for the last two years has been under constant observation, it afforded relief after the failure of many remedies, including arsenic, belladonna, ipecacuanha, lobelia, iodide of potassium in half-drachm doses four times a day, citrate of caffeine, jaborandi and pilocarpine, Jamaica dogwood, quebracho and its alkaloid, nitrite of amyl, nitroglycerine, iodide of ethyl, pure terebene, hypodermic injections of atropia and morphia, stramonium and datura tatula, nitre-papers, cubebs, cigarettes, vapo-cresolene, blisters over the pneumogastrics, and liniments, sprays, and inhalations of all kinds.—*Rep.*] Wm. Murrell, M.D.

5. *Riopel on Pulque.*—Pulque, or neutli, is the national drink of the Mexicans. It is produced, says Dr. Riopel (*Therap. Gaz.*, June 1881), by fermentation of the juice, expressed from the central portion of the maguey or Agave Americana. The plant itself has long been supposed to possess medicinal properties, and is reputed to be a diuretic. The juice, after being expressed between rollers, is carried to the vats for fermentation. These vats consist of raw ox hides, suspended in a strong wooden frame with the hair outside. They contain the ferment, the residuum of former fermentations. The liquid thus obtained is alcoholic, and contains fusel oil and car-

bonic acid. It is largely used by the lower classes as an intoxicant, and gives rise to the usual symptoms of alcoholism. [There is nothing new in this; it has been familiar enough to everybody for the last fifty years. Pulque is frequently known as octli or agave wine. The American aloe (*Agave Americana* or *Mexicana*) is of slow growth, and flowers, on an average, only once in ten years. In the plantations, the attendant watches each plant as the time of flowering approaches, and when the central shoot is about to appear he makes a deep cut, and scoops out the whole heart or middle part of the stem, leaving nothing but the outside rind, which forms a natural basin, into which the sap intended for the shoot collects. This fluid has a sweet taste, and is called *aquamiel*, or honey water. It ferments spontaneously, a small quantity of old fermented juice being, however, frequently added to hasten the process. Alcohol is at first produced, as shown by its intoxicating properties, and by yielding an ardent spirit on distillation. In this stage it is sometimes called *mexical*, or *aguardiente de maguey*. An acid is next formed; pulque, as a drink, being said to resemble cider. What the nature of this acid is, is not known. Finally, the almost tasteless juice acquires an intensely fetid odour, resembling that of tainted meat. This is probably due to the production of trimethylamine. It is a noteworthy fact, that many living plants—the bladder-headed saussurea, and the stapelias, for example—exhale putrid odours. The natives of Mexico ascribe many good qualities to their national beverage; it is an excellent stomachic, promotes digestion, induces sleep, and is a sovereign remedy for many diseases. —*Rep.*] William Murrell, M.D.

6. *Riva on Severe Chronic Gastric Catarrh Treated by Washing out the Stomach.*—Professor Riva relates, in the *Rivista Ital. di Terapia ed Igiene*, 1881, the case of a man who had suffered for eleven years from gastric catarrh, the disorder becoming steadily worse, until at last he vomited his food mingled with blood. In this condition, he was admitted into the hospital at Perugia. He was extremely emaciated, and percussion in the epigastrium showed that the stomach was greatly distended. He suffered while in hospital from extreme weakness, sour eructations, intense thirst, anorexia, vomiting (which was more frequent in the morning or at night), and constipation. The vomited matter was of very offensive odour, frothy, and sour: under the microscope it presented digested and undigested fibres of meat, starch-granules, fat-globules, mucus-globules, epithelial cells, and sarcoma. Dr. Riva determined to try the effect of washing out the stomach; and used for the purpose a Nélaton's sound, made rigid by the introduction of a metallic wire; to this was fitted a Kussmaul's pump, and the operation was conducted cautiously, so as not to injure the gastric mucous membrane. The fluid used was a solution of six grammes (93 grains) in 1,000 grammes (about 35 ounces) of water. After two or three operations, the presence of the tube in the stomach did not cause any attempt at vomiting. As this treatment produced only transient improvement, the quantity of bicarbonate of soda was increased to 10 grammes in 1000 of water. The treatment by bicarbonate of soda having been continued ten days without other marked result than cessation of the vomiting, solution of sulphate of copper (5 grammes in 1,000 of water) was injected, and allowed to remain three or four minutes. Under this treatment, the patient rapidly improved, and left the hospital a month after admission, having gained nine kilogrammes (nearly twenty pounds) in weight.

7. *Mosso on the Treatment of Neuralgia and Rheumatism by Electricity and Iodoform.*—Dr. Musso describes, in the *Gaz. Med. di Torino*, 1881, eighteen cases of rheumatism and neuralgia treated by electricity and iodoform. He says that useful effects are often produced by a simple Gaiffe's apparatus, with a weak induced current, in neuralgia and rheumatism. Sometimes, however, the malady does not yield to electricity: and in such cases he has given iodoform internally with success, sometimes alone, sometimes in combination with quinine, salicylate of soda, or bicarbonate of soda. This treatment gave the best result in neuralgia, but was useless in two cases of traumatic sciatica. The daily quantity was from 5 to 6 decigrammes (about 7¾ to 9 grains), besides what was applied externally; and no inconvenience was produced. In one case in which pure iodoform was applied externally, recovery took place, and iodine was detected in the urine. Dr. Musso says that iodoform may be given without fear in doses of from 10 to 15 centigrammes several times a day, external friction and other means of promoting the action of the remedy being employed at the same time.

8. *Ciaramelli on the Hypodermic Injection of Citrate of Iron.*—An abstract of an observation made by Dr. Ciaramelli on the hypodermic injection of iron is given in *Lo Sperimentale* for July. A patient under his care had anæmia of an extreme degree, the affection having lasted several years. For four months, he was treated with good food, exercise, pure air, decoction of cinchona, and preparations of iron, without effect. No iron could be detected in the urine; from which Dr. Ciaramelli concluded that the iron salt did not pass beyond the hepatic circulation, but was eliminated with the bile. He then injected daily from two to three grammes of a solution of one gramme of ammonio-citrate of iron in twenty grammes of distilled water. After thirty days, the rose tint returned to the patient's face, all the symptoms of severe anæmia being at the same time relieved. On chemical analysis, iron was found abundantly in the urine. Dr. Ciaramelli says that this one case is not enough to serve as the foundation of general principles, but it indicates a line of therapeutic research which may be of great practical value.

9. *Curci on the Action of Berberin.*—Berberin has been recommended in Italy as a remedy for enlargement of the spleen consequent on malarial disease; and its mode of action has been carefully studied by Dr. A. Curci, who has made with it a series of experimental, microscopic, and spectroscopic researches. An analysis of his memoir is given in *Lo Sperimentale* for August. He describes first its local and afterwards its general action. The local action of berberin, he says, may be said to consist in irritation and subsequent induration of the tissues. Thus the blood coagulates in the capillaries to which it is applied; the red corpuscles become small, nucleated, granular, and have pale outlines; the muscular fibres lose their distinctness; sometimes the striated fibres become larger and more marked, then lose the transverse striæ, and, the muscular substance coagulating at intervals, special enlargements are produced; the smooth fibres show distinct nuclei and become tortuous. All the tissues are hardened and strongly coloured by berberin; their vital properties are also increased, and there are active proliferation of connective tissue and in-

crease of fibrous tissue. Berberin produces contractions of the intestine, secretion of mucus and of intestinal juices, and tonicity of the tissues. In studying the general effects of berberin, Dr. Curci first tried its effects on healthy animals. In all classes of animals, it produces prostration, muscular relaxation, adynamia, collapse, progressive lowering of temperature, at first increased and afterwards diminished frequency of the heart's action and of respiration, serous diarrhœa, albuminuria, fatty degeneration of the kidneys, and complete anorexia. Hypodermic injections produce these phenomena rapidly, and, if repeated, are followed by death. On the other hand, the administration of berberin by the mouth requires a larger dose for the production of the symptoms; diarrhœa and renal changes are always absent, and death seldom occurs. Towards the end, when sensibility is somewhat diminished, there are tonic and clonic spasms. The temperature is at first lowered, then returns to the normal, and finally falls as death approaches. The vomiting is constant and painful, preceded by contractions; and the vomited matter consists of food and mucus. The abdomen is painful; and the dysentery at last becomes colliquative. The urine is yellow, acid, and albuminous. *Post mortem* examination only shows diastole of the heart and fatty degeneration of the cortical portion, with hyperæmia, of the kidneys. Spectroscopic examination of the blood indicates diminution of its oxidising and nutrient powers. Berberin reduces the temperature, not through the intervention of the vaso-motor nerves, but by its direct action on the tissues, through which action it also indirectly modifies the blood. With regard to the action of berberin on the spleen, Dr. Curci has found that its administration to animals is followed by an enlargement of that organ. Hence he concludes that, in cases where an enlarged spleen has become reduced under the use of berberin, this has not been due to contraction of the capsule of the spleen, but to the destruction of the malarial miasmatic agent, which is atrophied by berberin in the same way as other histological elements. Dr. Curci concludes from his experiments that berberin may be found useful: 1. in microscopy, as a means of colouring tissues and rendering them resistant; 2. in the treatment of atonic gastro-intestinal catarrh, of chronic dysentery, of wounds and ulcers (in which it does not cause suppuration, and stimulates the activity of the tissues), and of chronic conjunctivitis. Its action on the splenic enlargement of malaria is doubtful, and requires to be studied; and it would appear to be an excellent antipyretic, and to be a remedy against the decomposition of hæmoglobin.

10. *Parona on the Treatment of Ankylostomum by Ethereal Extract of Male Fern.*—Dr. Parona (*Gazzetta delle Cliniche, and Giornale Internaz. delle Scienze Med.*, No. 4, 1881) describes nine cases of ankylostomum duodenale, affecting workmen in the St. Gothard tunnel, which were treated successfully by the ethereal extract of male fern. The mode of administration was as follows. The bowels having been emptied by purgatives, the patient was placed for one day on a diet of broth, milk, and a little wine. Next day, ten grammes of the extract, suspended in 100 grammes of fennel water with ten parts of gum-arabic, were given in one dose, or, if the stomach did not tolerate it, in two doses with an interval of one hour. This dose was repeated three or four days, until the expulsion of all the parasites was complete. The dose sometimes amounted to thirty grammes. Slight gastric and intestinal disturbances were sometimes observed, but very soon passed off; and the alvine evacuations usually contained a certain quantity of mucus, which, however, readily disappeared. The administration of the remedy was sometimes followed by cerebral, cardiac, and pulmonary symptoms; probably, in Dr. Parona's opinion, secondary results of the gastric disturbance.

A. Henry, M.D.

11. *Coltman on Atropia as an Antidote to Opium.*—Dr. Robert Coltman (*Philadelphia Med. and Surg. Rep.*, June 25, 1881), gives an interesting case in evidence of the power of atropia to counteract the toxic properties of opium. The patient took an ounce of opium on June 2nd, and was found with pupils contracted to the size of the smallest pinhead, breathing stertorous, pulse slow, but of good volume, and quite incapable of being aroused. Emesis could not be produced on account of the torpid condition of the brain, and hypodermic injections of atropia were resorted to, with rapid and permanent improvement from the first. Flagellation, exercising the patient, strong coffee, etc., were not neglected, but the principal treatment was belladonna internally and atropia hypodermically, and to these Dr. Coltman attributes his ability to dismiss his patient as cured on the third day, especially since the system was not relieved of the opium by vomiting.

12. *Stehman on Jaborandi in Mastitis.*—Dr. H. B. Stehman, in the Lancaster Medical Society's Transactions, April 1881 (*Philadelphia Med and Surg. Rep.*, June 25, 1881), records remarkable results from the use of jaborandi in the treatment of mammary inflammation. There had been an abscess in the inflamed breast at a previous lactation, and now, six days after confinement, the breast was hard and swollen, and severely painful, and the patient suffered from pain in the head and back, and considerable fever. A poultice of two parts of flax-seed meal and one part of crushed jaborandi leaves, applied for twenty-four hours, caused the pain to disappear and the breast to become flaccid at the end of the second day; the milk flowed freely, and the mother nursed her child from it as easily as from the other breast. No milk was drawn during treatment, and the only other treatment was a diaphoretic mixture. Having used the same treatment in a number of similar cases since, Dr. Stehman says he has never seen it fail if used before suppuration had begun.

13. *Smith on a Method of Using Electricity in Diphtheria.*—Dr. G. K. Smith (*Proceedings of Kings' County Med. Soc.*, Aug. 1881) states that he has employed electricity with great advantage in diphtheria. His method is this. He places the feet of the patient in a bath of water as hot as it can be borne with comfort, and he puts in that water one, two, or three tablespoonfuls of saleratus. He then takes a glass of cold water and put some saleratus in it, and with this solution wets the electrode which is to be applied to the throat. The negative pole of the battery is put into the bath in which the feet are placed. The positive is to be covered with cotton and used in the throat, on the tongue, and in the nose if it be needed there. Of course the sponge-handles or ordinary electrodes cannot be used in these localities; but a very convenient one for the mouth and throat is made by covering the blade of a dinner knife with a thin layer of cotton, which is to be soaked with the solution of saleratus. The cotton also serves to keep the soft parts of the mouth and throat from direct contact with the metal, which otherwise would cause pain. The mouth should be kept open, so that the

teeth will not touch the electrode. A convenient electrode for the nose is made by winding a thin layer of cotton on a wire. Thus prepared, the patient is seated in a chair, if able to sit up. The feet are placed in the bath, and the patient holds in his lap a basin to catch the saliva as it flows from the mouth, or as he has occasion to spit it out. The physician should be careful not to sit in front of the patient, for fear that the patient will cough and blow his poisonous secretions in his face. Dr. Smith remarks that two of the members of the society have died from getting in the mouth the secretions of patients on whom they had performed the operation of tracheotomy. Sitting near the right side of the patient, he dips the electrode into the saleratus water to wet the cotton; then placing it on the tongue, he holds the knife by its metallic handle in the left hand, while he lays the right hand very gently on the sponge of the positive electrode. The current will now pass through the operator, and he can regulate the power of the current to the ability of the patient to bear it without pain. If he wants a stronger current, he can grasp the sponge a little tighter. As soon as the patient becomes accustomed to the current on the tongue, the operator may pass it (the electrode) gently up to the side of either tonsil. Watching a good opportunity, he can now pass it back to the posterior wall of the pharynx, and even down to the epiglottis. This last position is likely to make the patient cough, and will, in some instances, make him vomit. In either case, mucus in large quantities will be thrown out, and it will become necessary to remove the electrode; but before this is done, the current should be broken by raising the right hand from the sponge electrode. The cotton on the electrode should be secured by winding a little thread around it, and the operator should be careful not to let the electrode touch the teeth, as that will cause pain. If the current passing through the operator be too weak, he may bring the positive sponge up and touch the handle of the knife. The electrode must be removed occasionally, to give the patient a chance to breathe, to spit, etc. It is not necessary to use a strong current. The electrode for the nose can often be passed back as far as the posterior wall of the pharynx.

14. *Ott on the Active Principle of Jamaica Dogwood—its Physiological Action.*—This has been worked out by Dr. Isaac Ott (*Arch. Clin. Med.*) who arrives at the following conclusions. 1. Piscidia is a narcotic. 2. It does not paralyse or excite the motor nerves. 3. It does not act on the extremities of the sensory nerves, but on their central connection—the sensory ganglia of the spinal cord. 4. It produces convulsions, partly by stimulation of the spinal cord, and partly by heightened excitability of the voluntary striated muscles. 5. It reduces the frequency of the pulse by an action on the heart itself, probably on its muscular structure. 6. The arterial tension temporarily rises by stimulation of the monarchical vaso-motor centre; it soon falls, due to a partial paralysis of this centre and the heart itself. 7. It at first contracts and then dilates the pupil.

15. *Brakenridge on the Action and Use of Citrate of Caffein as a Diuretic.*—Dr. David Brakenridge (*Edin. Med. Jour.*, August 1881) makes the following remarks respecting the action of citrate of caffein as a diuretic. 1. It fails to produce any increase in the amount of the urine in cases in which the renal epithelial cells are diseased—as, *e.g.*, in the early stages of desquamative nephritis—even when vascular and saline diuretics produce a considerable increase. 2. It fails to do so in cases of cardiac dropsy in which, from physiological conditions, we may conclude that the glandular epithelial cells are already doing a maximum amount of work, or are exhausted by transference of work to them from the filtering apparatus. 3. When it acts as a diuretic it increases not only the amount of water passed, but also the amount of urea very markedly, if it have previously been abnormally lowered. 4. Its action is strikingly complementary of that of digitalis; so that, in cases in which both given alone have failed, the two administered together, according to the view suggested, have produced very striking diuretic results. 5. This increase in the amount of the urine may be independent of any increase in the general arterial blood-pressure, sufficient to account for it on any theory of general or local blood-pressure. 6. The combination of digitalis with citrate of caffein causes a striking rise in the amount and percentage of urea, which cannot be explained on any filtration hypothesis. How citrate of caffein stimulates the renal glandular epithelial cells, is still a matter of conjecture. Probably its action is similar to that of jaborandi or pilocarpin on the salivary and sweat glands. In a future paper he hopes to show that the latter substances have a diuretic action like that of caffein. On the other hand, caffein has been observed in exceptional cases to cause both sweating and salivation. From the foregoing considerations and his whole experience of this drug, Dr. Brakenridge deduces the following practical conclusions regarding the employment of citrate of caffein as a diuretic. 1. In cases in which the renal glandular epithelium is diseased, is already doing a maximum amount of work, or is exhausted, this drug is unsuitable and should not be administered. 2. During recovery from acute desquamative nephritis, when renewal of the renal epithelium has reached a certain point, citrate of caffein, cautiously administered, has appeared to him to have had a decidedly beneficial effect; possibly in such cases it may exert a trophic as well as a secretory stimulant influence. 3. In cases in which the arterial blood-pressure is tolerably normal, citrate of caffein should be given alone, not in combination with a vascular diuretic. 4. In cases of cardiac disease, with absence of compensation, and resulting diminution in the blood-pressure and flow of blood through the kidney, general dropsy, and transference of work in the kidney from the filtering to the secreting structures, a vascular diuretic, such as digitalis, must be employed in the first place to restore those conditions in the kidney which are essential to the action of citrate of caffein. For this purpose digitalis should be administered for a short period, one to three or four days, before commencing the citrate of caffein. 5. Citrate of caffein, employed in this manner, in conjunction with digitalis, which, for obvious reasons, must not be discontinued when the caffein is commenced, is a diuretic of extraordinary power, acts with great rapidity, and is especially valuable in this respect, that it causes a great increase in the elimination of urea (and probably of other solids) as well as of water. 6. It must, however, be remembered that special and powerful stimulation of any gland, especially if it be in a state of malnutrition, may, and usually does, lead, sooner or later, to exhaustion, and must, therefore, be regarded as at best a temporary expedient and of limited duration. 7. For this reason very large doses of citrate of caffein should be avoided. He has found three grains administered once, twice,

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The *Burroughs Beef and Iron Wine.* 'The useful preparation of beef and iron Wine, which we believe is coming rapidly into favour. Some of our most eminent physicians, who have given it a trial, speak of its efficiency, both in acute and chronic cases, in very high terms. It is a concentrated preparation, and bears a large dilution with water; and, in this condition, is readily taken by delicate persons and children unable to assimilate the usual tonics and nutrients.'

'It is a pleasant tonic and mild stimulant; it will be found useful in cases where the use of a blood tonic is indicated. The ordinary dose for an adult is a tablespoonful, which should be taken in a little water between meals; children also may take it in smaller doses according to age.'

Wyeth's Compressed Tablets. 'Are intended to replace the lozenges in ordinary use. No excipient is used: the tablet consisting only of the salt itself, firmly compressed into a lenticular shape by hydraulic machinery. The tablet of Chlorate of Potash, and of the same salt combined with Chloride of Ammonia, are especially convenient; each contains five grains; they dissolve slowly in the mouth, and are not as big as a threepenny bit. The compressed Tablets of Chlorate of Potash are now frequently prescribed by most medical men in affections of the throat.'

'We especially recommend the compressed chlorate of potash.'

'Our attention was called to Wyeth's new compressed tablet of small dimensions called Soda-mint, compound of bicarbonate of soda and carbonate of ammonia, with oil of peppermint in minute quantity. It is consequently very prompt and efficient in correcting acidity and the dyspepsia produced by it; it is also useful in heartburn, colic, and flatulence. This is obviously a very efficient combination, and the tablets themselves are manufactured with the utmost neatness and perfection. The very convenient form in which they are presented facilitates their use by travellers, business and professional men of all kinds, inasmuch as they are highly portable, dry, and easily carried in the waistcoat pocket.'

Wyeth's Dialysed Iron. 'Their preparation of this very valuable ferruginous medicament is one of the best we have seen, and as there is much evidence that preparations of so-called dialysed iron of very inferior quality are in use, this one deserves attention. Here, again, we draw attention to the mode in which it is sent out. Each bottle is enclosed in a paper case which contains an extra cork and an ingenious arrangement for the patient estimating the dose he should take. This consists of a glass tube, drawn to point at one end and at the other furnished with an India-rubber ball. On compressing the ball, putting the pointed end into the bottle, and relaxing the pressure, the tube fills, and the requisite quantity can then be dropped into a wineglass or suitable vessel.'

'An excellent preparation of dialysed iron.'

McKesson & Robbins' Capsuled Pills. 'We find McKesson and Robbins' capsuled pills of quinia bisulphate (or soluble sulphate) worthy of special commendation. The bisulpbate of quinine is much more soluble than the ordinary sulpbate. This advantage will be readily appreciated by practitioners, as it ensures more prompt action of the quinine. The covering of these pills entirely masks the taste of the drug for a sufficient time to allow of swallowing, but if a pill be retained in the mouth, it will completely dissolve within a very few minutes. These new and beautiful preparations are, in several respects, a decided improvement over any form of pills that has yet come under notice. They well deserve the confidence and favourable consideration which they have gained from the profession for purity and integrity. Practitioners who dispense their own medicines will recognise these preparations as a great convenience. They are especially well suited for filling medicine chests for travellers and explorers, as they preserve their qualities in all climates.'

'The McK. and R. Pills are ovoid in form and are coated with transparent gelatine, which dissolves if the pill be held for a minute or two in the mouth. The gelatine coating is perfectly sealed and protects the pill mass from the action of the air; this is especially well seen in the case of the Phosphorus Pills.'

'The pills of McKesson and Robbins are quite of the highest class of merit in respect to the method, in respect to the materials, and in respect to results.'

'The McK. & R. Caps. Pills are beautiful in appearance, the colour of the medicine showing clearly through the thin but perfect and soluble covering of gelatine. Their oval shape appears to give them great advantage over the round form of pill, as they are much more easily swallowed. They are all that can be desired in point of solubility, as the covering of gelatine is put on while the mass is soft. If one of their Quinine Pills be placed on the tongue (this is the best and most reliable test of solubility) the taste is at first entirely imperceptible, until in about half-a-minute the covering dissolves and the mass itself, being soft, dissolves in about two minutes more.'

The Burroughs Hazeline. 'Hazeline, the active principle distilled from the bark of the Witch-Hazel, is a clear limpid fluid, with mildly antiseptic properties; it is much used in the treatment of catarrh, and as a local application in ulcers and erythematous affections.' The following Report was communicated to the *British Medical Journal*, June 18th, 1881. "Having during the past few months given a somewhat extended trial to the new product of Hamamelis Virginica called 'Hazeline', I beg to place the following memoranda at the disposal of the readers of the *Journal*. As a local application in irritable and inflamed piles situated at the margin of the anus, where the remedy can be readily applied, I have never met with its equal. In most of the cases submitted to the treatment the relief was immediate and permanent. My plan has been to have the part bathed in the solution three or four times a day, and a piece of lint, dipped in it, kept applied to the anus during the intervals. All urgent symptoms have passed away, as a rule, in from twelve to twenty four hours. In chronic and intractable ulcers of the varicose or eczematous description, I have met with excellent results by using the Hazeline after the fashion of a water-dressing. I may add that about two hundred cases of ulcerated legs pass through my wards annually.—WILLIAM HENRY NETHERCLIFT, Med. Supt. of the Chelsea Infirmary.'

Kepler Extract of Malt. 'This improved Extract of Malt has now been under trial for some time in this country, where malt extracts are coming into use, and is very favourably spoken of by physicians both in respect to its nutritive and digestive properties, and as being of a very agreeable flavour. Being prepared at a very low temperature, its qualities are not deteriorated or its flavour spoiled in the preparation. The malt-extracts have long enjoyed a very considerable reputation in Germany, Switzerland, and America; and it is probable that, as English practitioners become more familiar with them, they will to a considerable extent take the place of animal oils, such as cod-liver oil, which are not always easily borne by the stomach, and which it is difficult to render palatable. Combined with cod-liver oil, malt extract appears to increase the nutritive powers of the oil, and to render it more easily digestible. We can recommend the Kepler Extract of Malt as being of a very high quality indeed.'

'Kepler Extract of Malt has already been favourably noticed in our columns; it is a well made and palatable preparation.'

REPORTS

UPON THE

KEPLER EXTRACT OF MALT

BY THE

HIGHEST MEDICAL AUTHORITIES.

Report of the *London Medical Record* on Kepler Malt Extract :—'Kepler's Extract is liked by patients, and often taken readily when other forms are not retained. It is a good plan to begin with a teaspoonful three times a day, but the dose may be rapidly increased to a tablespoonful or more. One of the best vehicles for taking the Extract of Malt is a little warm milk, but some people prefer it alone, whilst others like it with soda-water. It speedily improves the powers of assimilation, and in cases of consumption, scrofula, and many of the wasting diseases of children, a wonderful improvement in the patient's condition may be noticed after even a fortnight's treatment. The introduction of Kepler's Extract of Malt is a decided advancement in therapeutics.'

Second Report of the *Medical Press and Circular*.—'The Kepler Extract of Malt is very delicious to the taste, and has been found by analysis to be exceedingly rich in diastase, and consequently is a valuable digestive agent. The Kepler Malt, combined with cod-liver oil, is the most palatable and easily digested of any form we have yet seen for administering cod-liver oil.'

From the *British Medical Journal* :—'This improved Extract of Malt has now been under trial for some time in this country, where malt extracts are coming into use, and is very favourably spoken of by physicians, both in respect to its nutritive and digestive properties, and as being of very agreeable flavour. Being prepared at a very low temperature, its qualities are not deteriorated or its flavour spoiled in the preparation. The malt-extracts have long enjoyed a very considerable reputation in Germany, Switzerland, and America; and it is probable that, as English practitioners become more familiar with them, they will to a considerable extent take the place of animal oils, such as cod-liver oil, which are not always easily borne by the stomach, and which it is difficult to render palatable. Combined with cod-liver oil, malt extract appears to increase the nutritive powers of the oil, and to render it more easily digestible. We can recommend the Kepler Extract of Malt as being of a very high quality indeed.'

The *Lancet* says :—'Kepler Malt Extract is very good, and may be used with confidence.' Second Report of the *Lancet* on the Kepler Malt Extract :—'Kepler's Extract of Malt is as distinct an advance in therapeutics as was the introduction of cod-liver oil. It is one of our best remedies for atonic dyspepsia, and is undoubtedly useful in consumption and other wasting diseases.'

From the *Medical Press and Circular* :—'We have on more than one occasion drawn attention to the nutritious properties of Malt Extracts. Their great value consists in the fact that, when taken at or directly after meals, they assist in disposing of the other food, and thus indirectly, as well as directly, nourish and strengthen the whole system. The Kepler Malt Extract is reliable, and is manufactured in such a careful manner as to ensure the preservation of its valuable constituents.'

The *Medical Times and Gazette* reports :—'The Kepler Malt Extract, we venture to say, is by far the best we have seen.'

Professor Yandell of the University of Louisville, U.S.A., says :—'The "Kepler" Malt Extract is the best, and has the finest flavour of any I have ever seen. It is a very valuable preparation.'

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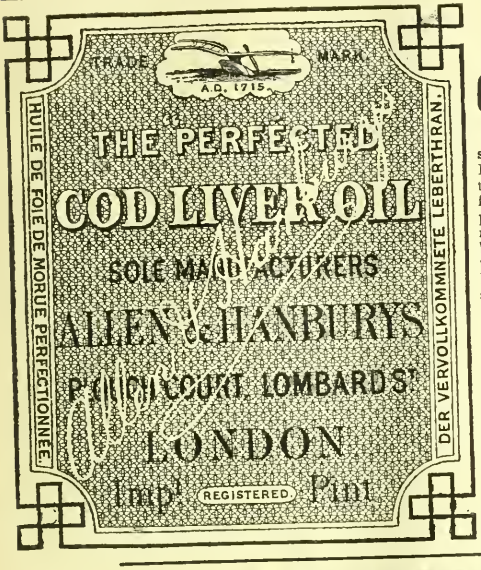

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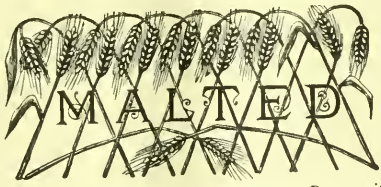

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Lancet, December 18th, 1880.—'This is an excellent preparation of Cocoa and Malt Extract. It is dried at a gentle heat to avoid injury to the diastase; its dietetic and digestive value is beyond all dispute, and it is very agreeable in flavour.'

See also—*British Medical Journal*, Nov. 13th, 1880; *Medical Times & Gazette*, Jan. 1st, 1881; *Medical Press*, Jan. 26th, 1881.

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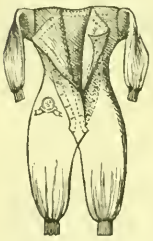

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Having achieved such marked success abroad, the Patentees feel sanguine that its introduction into this country, possessing, as it does, a climate so liable to sudden and extreme changes, will obtain results even more satisfactory. At the late Exhibition at South Kensington, it was, for the first time, seen by the British Medical Profession, and by them, as well as their foreign brethren, universally approved; and orders to a large extent were taken.

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or three times daily, according to the circumstances of the cases, amply sufficient for all purposes. 8. Whenever the beneficial effects of the drug have been attained, we should at once endeavour to render them permanent by suitable diet, well selected chalybeate and other tonic remedies, or other remedial measures indicated by the special circumstances of the case. 9. Finally, in cases of very great ascites, in which the blood-pressure in, and the flow of urine through, the kidneys is interfered with by pressure on the kidney and the renal artery and vein, and in which the pressure of the urine within the capsules is increased by pressure on the ureters, neither vascular nor secretory diuretics, alone or combined, can act efficiently until the pressure of the ascitic fluid has been got rid of. 10. The citrate of caffein may be administered either in pill or in solution.

16. *Soltmann on Treatment of Cholera Infantum by Resorcin.*—Soltmann (*Breslauer Aerztl. Zeitschr.*) uses resorcin, in doses of 10 to 30 centigrammes (1 to 4.5 grains), in 60 grammes (2.1 ounces) of infusion of chamomile, for children a few months old. Its action is marked within two days, but a cure is obtained, on an average, in six days. Resorcin is a benzine, odourless, white, and crystallised, and has the same antiseptic properties as the phenols and carbolic acid. Ninety-one children were treated with it at the Breslau polyclinic (free dispensary), with very happy results. In collapse, excitant treatment (such as subcutaneous injections of ether) were also used. The following results are said to be produced by it. 1. Ordinarily, the vomiting ceases in a short time, after small doses. 2. The symptoms of collapse diminish. 3. The stools become less frequent. 4. Resorcin, like carbolic acid, is an antiferment, but it is not irritating, and produces no symptoms of intoxication in medicinal doses, like the latter. 5. Patients take it willingly, and it is tolerated by the stomach; under its influence, the digestive tube quickly recovers its function of assimilation which it had lost.

17. *Shinn on Benzoate of Calcium in Albuminuria.*—Dr. A. H. Shinn (*Phil. Med. Times*, p. 747, Aug. 1881) recommends benzoate of calcium as an efficient aid in controlling the albuminuria of pregnancy, as well as a valuable remedy in Bright's disease from other sources. Dr. Shinn has produced a very beautiful crystalline salt of the calcium benzoate, consisting of exquisite translucent, colourless, acicular crystals, soluble in about the proportion of twenty grains to the fluid ounce of water; and of this, the dose he has adopted is, in marked cases, ten grains dissolved in a tablespoonful of fluid, consisting of water with enough orange syrup to flavour it, to be administered every two or three hours during the day.

18. *Martin on Parsley as a Means of Suppressing the Secretion of Milk.*—M. S. Martin reports (*Bull. Gén. de Thérap.*, Aug. 30), that, if the breasts of a nursing woman be covered with parsley leaves freshly pulled, the application being renewed several times a day, as quickly as the leaves fade, the milk will cease to appear. This is an application which may be used when it is impossible to give purgatives or other remedies internally.

19. *Kaposi on Beta-Naphthol in Skin-Diseases.*—Professor Kaposi of Vienna gives, in the *Wiener Med. Woch.*, May 28th, June 4th and 11th, 1881, an interesting account of experiments conducted with beta-naphthol, usually called simply naphthol ($C_{10}H_8O$), and manufactured specially for medical use by Messrs. Kunheim and Co. of Berlin. The beta-naphthol is a dark violet-brown crystalline mass, which breaks easily into powdered fragments. It has a weak phenol-like, but sweetish, odour. A particle placed on the tongue causes acute burning, similar to that caused by Spanish pepper. A drop of a weak solution of carbonate of potash will, however, soon remove this. Naphthol dissolves in equal weights of alcohol, only with difficulty in water, but easily in diluted spirit of wine. If to an alcoholic solution of naphthol a little water be added, a cloud will immediately form, which disappears on shaking, when the water added does not exceed half the volume of alcohol. Naphthol dissolves freely in fixed oils and fats. A diluted alcoholic solution and a salve are, therefore, the only means of applying naphthol. Care must be taken not to make them too strong. Professor Kaposi reports the successful treatment of 106 cases of skin-disease of very various character. In cases of scabies he prescribed as follows: Naphthol, 15 parts; adeps, 100 parts; sapo viridis, 50 parts; creta alba, 10 parts: to be applied twice a day.

20. *Stewart on Coto-Bark in the Sweating of Phthisis.*—In the July number of the *Canada Lancet*, Dr. J. Stewart of Brucefield, Ontario, recommends coto-bark very highly for this purpose, having made the observation while using the agent to control the diarrhœa in a case of phthisis a year ago. Since that time he has used it in twenty-two cases of night-sweating, with beneficial results in all but two of them, and in sixteen cases the arrest of the sweating was prompt and long-continued. In one of the two cases of failure, atropine proved efficacious after long-continued use. In the other, atropine, strychnia, and oxide of zinc all failed.

21. *Costelli on the Treatment of Scurvy by Hydrotherapy.*—Dr. Costelli (*Rivista Clinica di Bologna*, Jan. 1881; and *Jour. des Sciences Méd. de Louvain*, April 1881, p. 184), after having become convinced of the almost complete inutility of all the most approved remedies for scurvy, determined to try hydrotherapy, a means which may be considered as quite original in this malady. Twenty-eight patients were treated in this manner at the military hospital of Bologna from 1873 to 1877, and fifty in 1878. Amongst the latter, seventeen cases showed the gravest symptoms, with difficulty or impossibility of standing upright; thirteen could scarcely rise and walk, with the help of a stick, to the hydrotherapic room; others, although affected to a smaller extent, might be reckoned among serious scorbutic cases. All were cured in a period of thirty-seven days; the time would have been less for a certain number of them, but they were attacked with a periodical fever, notwithstanding which, they were cured by the continuation of the same treatment. Before beginning the application of the cold water, the operator was very careful to ascertain that the patients had no fever or acute or subacute thoracic or abdominal inflammation, and especially that they were free from any cardiac affection. In certain cases, a slight amount of dropsy, arthritis, subacute polyarthritis, and arthralgia, were not considered as counter-indications. The treatment was very carefully conducted, great attention being paid to the various effects obtained; sometimes the shower-bath was used, sometimes the circular spray-bath, which is the most powerful, and, in certain cases, the full douche. As to the pathogeny of the disease, neither the humoral nor the solidest theories satisfied Dr. Costelli, who, after studying its etiology and semeiology, and especially

the results of his method, concludes that scurvy depends on atony of the vaso-motor or trophic nerves, invading, by preference, the mucous membranes and the substance of the muscles, and presenting hæmorrhagic tendencies in relation with the complex conditions of debility.

22. *Wilson on Sulphurous Acid Injections in Gonorrhœa.*—Mr. W. D. Wilson has found (*Lancet*, July 1881, p. 205) sulphurous acid injections unfailing in their curative action in cases of gonorrhœa. One part of the acid, with fifteen of water, injected twice a day, is the only treatment. Six days was the average time in which sixteen soldiers returned to duty, after employing this mode of treatment.

23. *Stowers on Chrisma as a Parasiticide.*—Dr. J. H. Stowers, in reply to Mr. Crane's eulogy upon this agent, a notice of which is to be found in the August number of the London Medical Record, states his experience of vaseline, which he had hopefully employed in similar cases, but which entirely failed to cure or relieve a single case; and he gravely questions whether Mr. Crane's assertions of the value of chrisma can be sustained.

24. *Smith on the Use of Olive-Oil in the Treatment of Gall-Stone.*—In the *Lancet*, August 1881, p. 351, Dr. R. Shingleton Smith explains the rationale of this mode of treatment, showing, by a most instructive case, its fallacy and inefficiency. A medical man, between sixty and seventy years of age, subject to attacks of biliary colic for several years, took six ounces of salad-oil within the space of one hour. Next morning an enema brought away fæces of almost stony hardness, and hundreds of green masses of all shapes and sizes, from a canary-seed to a good-sized horse-bean. Chemical examination proved that these bodies were (1) totally different from ordinary gall-stones, and (2) that olive-oil formed their chief composition; and therefore it may be safely inferred that they were intestinal concretions resulting from the administration of the oil, and that they had not been discharged from the gall-bladder. Another and more severe attack came on subsequently to taking the oil, and eventually a gall-stone passed, with relief to all the symptoms. [Dr. Roderick Kennedy, in the *Lancet*, September 1880, p. 456, drew attention to the use of olive-oil in the treatment of gall-stone, a treatment judiciously criticised by Mr. James Ball, at page 522. In the London Medical Record, 1881, p. 100, there is also a case reported as successfully (?) treated by the same agent.—*Rep.*] R. Neale, M.D.

MEDICINE.

RECENT PAPERS.

1. Mickle. — Rapid Death following Hæmorrhage into the Pons Varolii and Medulla Oblongata. (*Brit. Med. Jour.*, July 1881, p. 151.)

2. Mott.—Case of Typhoid Fever complicated with Diphtheria. (*Brit. Med. Jour.*, July 1881, p. 161.)

3. Porcher.— Metallic Tinkling. (*Virginia Med. Monthly*, Oct. 1881.)

4. Goss.—Membranous Enteritis. (*Boston Med. and Surg. Jour.*, June 2, 1881.)

5 Sturges.—Cardiac Symptoms of Chorea. (*Brain*, July 1881.)

6. Langenbuch, C.—Nerve-Stretching in Diseases of the Spinal Cord. (*Berl. Klin. Woch.*, Nos. 24, 25, 26, 27.)

7. Lachmann.—A Case of Idiopathic Progressive Anæmia. (*Berl. Klin. Woch.*, Feb. 21.)

1. *Mickle on Rapid Death following Hæmorrhage into the Pons Varolii and Medulla Oblongata.*—Dr. W. Julius Mickle reports an interesting case, in the *Brit. Med. Jour.*, July 1881, p. 151, in which a man, aged 39, convalescent from an attack of pulmonary congestion, whilst sitting up in bed, and quite in his ordinary condition of health, suddenly vomited heavily, turned livid, falling back in bed perfectly insensible. Death took place within seven or eight minutes. On a *post mortem* examination, the pons Varolii was found slightly ruptured in front, and ploughed up and pulpified internally by blood, and was, for the most part, occupied by blood-clot and clot mingled with nerve-substance. The upper and posterior part of the medulla oblongata was also invaded. The case is reported for its medico-legal bearings. Death from intracranial hæmorrhage is rarely sudden, and at the most only moderately rapid. In this case, it occurred with extreme rapidity.

2. *Mott on a Case of Typhoid Fever complicated with Diphtheria.*—Mr. F. W. Mott reports, in the *Brit. Med. Jour.*, July 1881, p. 161, a case under the care of Dr. Roberts in University College Hospital, in which a lad, aged 16, during a typical attack of typhoid fever, developed in the third week all the symptoms of diphtheria, dying on the third day of the attack. Mr. Mott concludes his paper with an instructive *résumé* of similar cases. [Some valuable editorial remarks on the co-extense of typhoid and diphtheria may be found in the *Lancet*, June 1881, p. 1037. Other interesting papers may be consulted, vide *Lancet*, Aug. 1878, p. 180; the *Brit. Med. Jour.*, Jan. 1879, pp. 163, 190.—*Rep.*] R. Neale, M.D.

3. *Porcher on Metallic Tinkling.* — Professor Porcher, of Charlestown, says that he has heard unmistakable metallic tinkling in but three cases in seventeen years' hospital practice, with constant practice and teaching of auscultation (*Virginia Med. Monthly*, May 1881). He has made a recent necropsy with the following result. The lung was enveloped in a stratum of air, pneumothorax existing from an old pleuritic effusion which had been absorbed. One border of the upper lobe was fastened to the wall at a point within corresponding to the nipple, necessitating the use of a knife in removal. The lung was consequently suspended in air and in a state of tension, and the chest-wall acted as a sounding board. Within the lung, extending from the apex four or five inches downwards, was a large cavity, with several strings stretching across it at different intervals, with a considerable collection of mucus. Thus the inspired air resounded against the tense walls of the cavity, the connecting bridles and the fluid serving as elements in the production of the sounds heard in auscultation.

4. *Goss on Membranous Enteritis.*—Dr. Francis W. Goss describes (*Boston Med. and Surg. Jour.*, June 2, 1881) four cases of this affection, which is characterised by the discharge from the bowels of what appear to be membranes or skins, of varying size, in the form of shreds, strips, or tubes. This peculiar discharge is accompanied with uneasiness and discomfort, if not with actual pain. The malady is of long duration, the patients, during the weeks or months while suffering from the discharge, being invalids, often confined to the bed or house. They seldom so far recover as to be in robust health, and, sooner or later, are subjected to recurrences of the trouble, with the accompanying physical weakness and suffering. The patients are usually persons

who have not enjoyed good health, but have for years suffered from headache, dyspepsia, constipation, and general debilty. They are easily fatigued. Care or over-anxiety often precedes, and seems to bring on, an attack. Rarely is there a single one, but there are commonly recurrences at intervals of months or years. The period of suffering may extend over many weeks, and during this time there are frequent discharges of the membrane-like substance, even several times a day. The paroxysms are commonly preceded by a febrile condition, nervousness, uneasiness in the stomach, and, sometimes, by nausea and vomiting. Abdominal pain and tenderness are not usually very marked, nor limited to any particular region, and the discharge is followed in some cases by a sense of relief. In the intervals between the recurrences of the attacks, the patients are rarely restored to vigorous health. The diagnosis can readily be established by a consideration of the clinical symptoms with an examination of the discharge. Such an investigation will eliminate intestinal worms, fragments of hydatids, intestinal diphtheria, dysentery, or the discharge of a portion of the bowel. Da Costa urges the importance of inquiring, in cases of anomalous nervous symptoms, particularly when happening in hysterical persons where there is abdominal pain, into the possible existence of the malady under discussion. The prognosis is rather unpromising for a complete recovery. The treatment during the paroxysm, or when one is threatening, resolves itself into putting the patient in the condition most favorable to mitigate or endure the attending discomfort. Many and varied, according to all authorities, have been the medicines employed to prevent the recurrence of the malady, but their results for the most part have been disappointing.

5. *Sturges on the Cardiac Symptoms of Chorea.*—Dr. O. Sturges (*Brain*, July 1881) summarises the several factors of the heart-symptoms, thus. 1. In the course of the chorea of childhood the heart's action is apt to become irregular or uneven, and its first sound to be followed by apex-murmur, which is variable in pitch, influenced by posture, seldom audible in the axilla or at the angle of the scapula, and which disappears along with, or shortly after, the chorea, the heart and the circulation suffering no injury. 2. This liability on the part of the heart to what, from its signs, would seem to be a functional disturbance, is independent of the violence or method of the chorea, but dependent upon the age of the patient, the younger children being the most, and the elder the least, liable, while beyond childhood there is little if any liability of the kind. 3. These heart-signs of chorea—acute rheumatism being excluded—give rise, as a general rule, to no symptoms whatever affecting the health or comfort of the child. They make no apparent difference to the prospects of recovery, or to the structural integrity of the heart. Nevertheless, choreic children having this murmur, and happening to die, either with or shortly after recovery from chorea, very commonly exhibit a beading of recent lymph on the mitral valve. Such, he says, are the chief statements which statistics seem to warrant. To these he adds another, which, so far as he knows, has never been statistically reckoned, but which no one will gainsay. It is, indeed, the most constant of all the heart symptoms of chorea, and met with at a later age than the rest. He refers to the acceleration of the heart and pulse.

6. *Langenbuch on Nerve-Stretching in Diseases of the Spinal Cord.*—Dr. Carl Langenbuch has published, in Nos. 24, 25, 26, and 27 of the *Berl. Klin. Woch.*, his further experiences of the results of nerve-stretching in tabes and other diseases of the spinal cord. He shows that, on account of the long course of tabes, the later stages alone are seen in the *post mortem* room, and he also points out that in this disease there are lesions of nerves, as well as of the cord. Sometimes congestion of the nerves, sometimes anæmia, is found. In answer to the question, 'Why are the posterior root-zones affected?' he answers that these are the media of communication between centre and periphery, and may be regarded as practically peripheral substance. The columns of Goll connect grey centres with one another, and are only secondarily affected. He regards cold as the great cause of tabes dorsalis. With regard to the treatment of this and similar diseases, the author observes that even the most useful means—baths, electricity, cautery, etc.—produce only small benefit occasionally; much improvement rarely; recovery never. Such methods act on the end-organs, and thence affect the centres. Nerve-stretching acts directly on the centre; and, although brought forward with caution, it has been abundantly successful. If necrosis of nervous elements have set in, the cure is only partial; but if the disease be taken early, the recovery is complete. Of 28 patients, 16 suffered from tabes, 2 from multiple sclerosis, 1 from lateral sclerosis of both sides, 1 from lateral sclerosis of one side, 1 from muscular atrophy, 2 from tetanus, 3 from spinal myelo-meningitis, 1 from pemphigus, and 1 from pruritus. Six of the tabetic patients were dismissed as cured; the others were recent, and were still in bed when the paper was published. The multiple sclerosis was much relieved in both cases. The one-sided lateral sclerosis was entirely cured, and the bilateral case was too recent to be set down in the list of recoveries. The case of muscular atrophy was considerably improved, but was only recently operated on. The tremors were much diminished, but sufficient time had not elapsed for certainty to be attained. Two cases of myelo-meningitis had only just been treated, and the effect was uncertain: in the third there was little, if any, improvement. Both cases of tetanus died; and, lastly, the case of pemphigus and that of pruritus were both entirely cured. During the operation, both pulse and respiration undergo considerable but varying changes, and when much alteration was observed, further stretching was not allowed. After the influence of the anæsthetic had passed off, the patients had no uneasiness, and expressed themselves, in certain cases, as grateful for the removal of pain. Sensibility was never diminished, but sometimes increased, and there was total removal of the feeling of cold in the extremities. In some cases the one leg felt as if longer than the other, and there was a sensation of being in a strange position. Motility was rapidly restored, and the ataxy removed. Constipation ceased, and involuntary micturition was cured in some cases; and in one case impotence was brought to an end. The sight was improved in cases where it had been affected. The after-results of longer periods have necessarily not been observed as yet; but we have sufficient evidence to lead us to hope for much. Dr. Langenbuch shows that nerve-stretching has an influence upon the whole nervous system, and in conclusion points out that, in disease of the spinal cord, nerve-stretching is a method of treatment from which, under antiseptic management, nothing is to be feared, and everything may be gained.

G. A. Gibson, M.D.

7. *Lachmann on a Case of Idiopathic Progressive Anæmia.*—Dr. Lachmann relates the following case in the *Berl. Klin. Woch.*, Feb. 21, 1881. A young joiner, aged 19, after journeying by deeply snowed roads, suffered from a discharge from the left ear, and severe right-sided headache. On arriving at Frankfort, he was arrested for begging. During the seventeen days' detention he complained of illness, and was twice examined, but nothing important found. On his discharge, he was very weak, and could travel only very slowly. After six days, he reached Giessen, and was immediately admitted into hospital. On admission, his temperature was 40 deg. Cent. (104 deg. Fahr.); his blood, which, owing to the prevailing epidemic of relapsing fever, was examined microscopically, showed no changes. He was a strongly built man, fairly well nourished, colour of skin normal. There was otitis media. The thoracic and abdominal organs were healthy, with the exception of tenderness over the abdomen, which was retracted. He complained of headache and a sense of weariness in the legs. Severe diarrhœa followed an enema given for constipation, but was arrested by moderate doses of opium. This was followed by retention of urine, which was relieved by catheterism. The urine contained a trace of albumen on one or two occasions. The pyrexia meanwhile continued; there was a slight jaundice, lasting only one day; and a rough systolic murmur, loudest over the sternum, developed. The patient became very pale in colour, was apathetic, suffered from vertigo when sat up in bed, and a whitish-yellow exudation and hæmorrhages were observed in the retina. The pallor increased, the inguinal glands became slightly swollen, and there was tenderness over the sternum. There was no enlargement of the spleen. The murmur became audible at the apex and in the arteries, and a continuous rushing sound was heard over the veins of the neck. The optic discs became a little indistinct at the upper, lower, and inner margins, with fresh hæmorrhages and exudation in the retinæ. Next a tumour, varying in size and shape, rapidly formed in the abdomen, and could be felt *per rectum*. This was followed by slight swelling of the left leg. The temperature, which had been of a remitting type, now began to fall, and the patient to improve; the tumour diminished in size, and, in a few days, disappeared, followed by subsidence of the swelling of leg. The temperature became normal, the hæmorrhages disappeared from the retina, and the margins of the discs became more distinct. The patient gained flesh, his colour returned to his cheeks, and he was discharged well ten weeks after his admission. The treatment was fluid nourishment; at first, hydrochloric acid, followed by quinine, fifteen grains in the twenty-four hours; and the continued administration of dialysed iron. The enumeration of the blood-corpuscles at different times gave the following results.

	No. of red corpuscles.	No. of white corpuscles.	Proportion of white to red.
Feb. 26	1,000,000	40,000	1 to 25
March 1	1,250,000	17,500	1 to 70
,, 6	2,000,000	10,000	1 to 200
,, 10	2,100,000	2,500	1 to 840
,, 15	3,000,000	5,000	1 to 600
April 10	4,800,000	7,000	1 to 685

When first examined, the formation of the red corpuscles in roulcaux was quite absent, but became present as the corpuscles increased in number. Some of the red corpuscles were very small and round, some were nucleated, some presented amæboid movements. The white corpuscles were large and small, similar to lymphatic and splenic corpuscles. The author carefully reviews the case, considering, and excluding from the diagnosis, relapsing fever, enteric fever, and acute and ulcerating endocarditis. [Unfortunately it is not stated whether the murmur persisted or disappeared.] He then points out that, though many of the symptoms would be explained by a myelogenous leuchæmia, the persistent high temperature and course of the disease were opposed to this diagnosis. He concludes that the case was one of progressive pernicious anæmia, which, in the absence of any discoverable etiological condition, must be regarded as 'primary or essential'. The rapid and complete recovery he hesitates to ascribe to the treatment employed. The abdominal tumour, which so rapidly formed and disappeared, he regards as due to a large hæmorrhage, and this he conjectures to have caused by pressure thrombosis of the iliac vein. [The author of this carefully observed and fully detailed case is probably correct in his conclusion, though the case is in many ways exceptionable. It will be found that, with increasing knowledge on the subject, cases which must provisionally be placed under the head of idiopathic or pernicious anæmia, present considerable differences, though agreeing in marked alterations of blood. The absence of obvious visceral disease (otherwise than consecutive to the anæmia), and the correspondence between the patient's condition and the richness of the blood in corpuscles show that anæmia was an essential peculiarity of the disease, though on what that anæmia depended, as in most of such cases, is uncertain. The rapid course of the disease is most remarkable. A certain degree of leuchæmia is sometimes associated with the diminution of coloured corpuscles at the commencement or close of cases of pernicious anæmia; and, intimately associated as are the development of white and red corpuscles, leuchæmia and anæmia sometimes pass the one into the other.—*Rep.*]

STEPHEN MACKENZIE, M.D.

SURGERY.

RECENT PAPERS.

1. Sée, Marc.—The Use of the Vulcanised India-rubber Bandage. (*Soc. de Chir. de Paris.*)

2. Vance, R. A.—On Lithotrity. (*Annals of Anat. and Surg.*, July 1881.)

3. Gaujot, G.—The Treatment of Floating Bodies in the Knee. (*Rev. de Chir.*, No. 5 and 6, 1881.)

4. Tillaux.—The Tarso-Metatarsal Joints with regard to Lisfranc's Operation. (*Bull. et Mém. de la Société de Chirurgie*, No. 4, 1881.)

5. Bruns.—On Transplantation of Marrow. (*Archiv für Klin. Chir.*, Band xxvi, Heft 3.)

6. Charcot.—Effusions of Blood at the Fold of the Elbow. (*Revue de Chir.*, Sept. 10, 1881.)

7. Menard.—Forcible Straining of Genu Valgum. (*Revue de Chir.*, Sept. 10, 1881.)

8. Coates.—A New Method of Operating on Internal Piles. (*Brit. Med. Jour.*, August 1881, p. 350.)

9. Cheyne.—Retropharyngeal Abscess opened from the Outside of the Neck. (*Med. Times and Gaz.*, August 1881, p. 254.)

10. Coombs.—A New Method of Treating Subcutaneous Nævi. (*Lancet*, August 1881, p. 374.)

11. Bryant.—Warren's Radical Cure for Hernia. (*Lancet*, August 1881, p. 374.)

1. *Sée on the Use of the Vulcanised Rubber Bandage.*—In a paper communicated to the Société de Chirurgie of Paris, on June 29th, M. Marc Sée states that he has for many years made use of the vulcanised rubber bandage in the treatment of the following surgical affections: 1. Œdematous infiltration of limbs, from whatever cause: whether from heart-disease, affection of the liver, cachexia of any kind, pressure of an abdominal tumour, etc. In any of these instances, the elastic bandage properly applied prevents too considerable distension of the skin, as well as the development of the erysipelatous redness which frequently follows any partial mortification of the integument. The bandage is particularly efficacious in cases of the troublesome infiltration of the upper limb that often occurs in women suffering from cancer of the breast, with extension of the disease to the axillary glands. It is equally useful in the treatment of œdema persisting after the cure of phlebitis, lymphangitis, etc. 2. Sero-plastic infiltrations following diffuse phlegmon, which result in stiffness of joints and impairment of motion arising from a rigid condition of the skin and subcutaneous cellular tissue. Frictions and shampooing, so useful in cases of this kind, will find their efficacy much promoted by the use of the elastic bandage during the intervals of the sittings. The stiffness due to swelling of the fingers following phlegmon of the hand and forearm may be successfully dealt with by the same means. 3. Infiltrations and effusions of blood after contusions, subcutaneous lacerations, and ecchymoses of every kind. The rubber bandage favours and hastens the absorption of the extravasated blood by acting on it in the same way that the thumb of the surgeon acts when crushing a blood-swelling of the hairy scalp, save only that it works gently, without violence, and in a continuous manner. 4. Serous effusions into joints and, especially, hydrarthrosis of the knee, the elbow, and the ankle; affections that are often rebellious to other plans of treatment, or which return as soon as the patient begins to walk or to use in some other way the affected limb, as is often seen in cases of gonorrhœal arthritis. In many instances of this kind, M. Sée has attained good cures in the course of a few days by the use of the elastic bandage, and even after prolonged rest and the application of the actual cautery had proved ineffectual. 5. Phlegmonous inflammation, whether circumscribed or diffuse, at any period of its evolution. Wherever it is applicable, the rubber bandage in cases of this affection is an useful substitute for the poultice, over which it has the advantage of being capable of moderating the afflux of blood by compressing the tissues. 6. Ecthyma of the surfaces of limbs, and the ulceration remaining after the separation of the crusts; also atonic ulcers of the lower limbs, callous ulcers, varicose ulcers. In all these affections, the elastic bandage causes a rapid disappearance of all complications, and favours cicatrisation. 7. The elastic bandage is very useful in the dressing of recent wounds, whether due to accidental injury or to surgical operation. When fixed over a Lister's dressing it favours immediate union, and permits a prolonged retention of such application. M. Sée has occasionally, after having allowed the dressing to remain for three weeks, found the wound completely healed. In order to avoid any evil effects, it is necessary, M. Sée points out, to use certain precautions in applying the rubber bandage. The compression exerted by it on the soft parts should be very slight, and should never be carried so far as to impede the circulation. Each turn of the bandage should cover one-third or one-fourth of the width of the preceding turn, and no part of the surface of the limb should be left uncovered between the turns, for such uncovered part would soon swell through infiltration of serosity into the meshes of the cellular tissue. Save in those special circumstances in which the bandage should be allowed to remain as long as possible, it ought to be removed every second or third day, and be re-applied after cleansing in a solution of carbolic acid. The effects produced by the bandage depend on two properties possessed by it to the highest degree, elasticity and impermeability. By its elasticity it exercises on the parts covered by it a pressure, which, though always very feeble, is not the less very efficacious, since it is exercised continuously, and is little influenced by any slight changes in volume which the affected limb may undergo. By its impermeability, the rubber bandage establishes an impassable barrier between the part covered by it and the external air. On the one hand, it amasses beneath it the products of perspiration and of cutaneous secretion, so that the wound or ulcer is in a constant state of heat and moisture, as if covered by a poultice. On the other hand, it prevents germs that float in the air from approaching and contaminating the open surface and exciting the putrefaction of the effused fluids, and thus constitutes a very useful adjuvant to the antiseptic dressing.

2. *Vance on Lithotrity.*—Dr. Reuben A. Vance, of Cincinnati, in a contribution to the July number of the *Ann. of Anat. and Surg.*, on 'Certain Movements of the Bladder, and their Relation to Lithotrity', states that there is one point connected with the manipulation of the lithotrite in the human bladder, to which a proper amount of attention has not been given. In addition to the difficulties due to muscular contraction that the surgeon has to overcome during the introduction of the lithotrite, in the first place at the membranous portion, and again in the prostatic portion of the urethra and at the neck of the bladder, there are certain motions of the vesical walls themselves, when stimulated by the presence of this instrument. The following description is given of the procedure that the author adopts and teaches. 'When the beak of the lithotrite is passed through the vesical sphincter, it is to be carried onwards, the blades vertical, until the stone is touched or the posterior wall of the bladder reached. If the stone be touched, the handle is revolved so that the blades pass the calculus, and the journey of the beak is resumed. When the beak reaches the posterior wall, the wheel of the handle is withdrawn, so that the anterior surface of the male blade is brought into contact with the mucous membrane lining the anterior wall of the bladder. Both blades point directly upwards. The surgeon now gently revolves the handles to and fro, so that the blades are brought into contact with both walls of the bladder, and stimulates that organ to contraction, being careful to leave the blades at the close in a vertical position. At first there is what seems like an antero-posterior contraction; the blades are forced towards each other. This tendency to close the blades being resisted, there quickly succeeds a different series of movements: the base of the bladder seems to rise and the stone is elevated and rolled forward; if the blades be now closed, in very many instances, the stone is caught by its centre, thus showing that, as a consequence of this secondary movement, the stone has been carried to the middle of the bladder. As a consequence of the stimulus communicated by the revolving blades of the lithotrite to the mucous lining of the bladder, the vesical

cavity is diminished, first in the antero-posterior diameter, and next in the vertical diameter. It is probable that during the first movement there is an increase in its vertical measurement, and, during the second movement, of its antero-posterior diameter. Be that as it may, it is an unquestionable fact that, when this series of movements is excited in the way directed, the contractions of the lower part of the bladder are sufficiently powerful and extensive to lift the stone and roll it into such position that the blades, closed while in a vertical direction, grasp it in the situation most favourable for crushing.'

3. *Gaujot on the Treatment of Floating Bodies in the Knee.*—In a recent contribution to the *Rev. de Chir.* (Nos. 5 and 6, 1881) Dr. G. Gaujot, of the Hôpital du Val-de-Grace, states that, since the inquiry of Baron Larrey, in 1861, on the treatment of floating bodies in the knee, direct extraction through a free incision has advanced much in the favour of French surgeons. The subcutaneous operation, though sound in principle, is often attended in practice with certain risks and disadvantages. Penetration of air and blood into the articular cavity cannot always be avoided, and is very likely to result, when through the size of the foreign body it is necessary to cut freely with the tenotomy-knife, or when the synovial membrane is much lacerated. This result exposes the patient to the risks of synovitis, which either may be restricted to the plastic form, or may become purulent. Plastic arthritis, in consequence of the functional impairment in which it results, is a serious complication, and purulent arthritis is very often fatal. Another disadvantage attending the subcutaneous operation is the frequent difficulty and, in some instances, the impossibility of effecting extrusion of the floating body through the orifice made in the synovial membrane. Again, during the interval between the first and second stages of the subcutaneous operation, there is always a risk of the foreign body slipping back into the joint, as there is very little tendency for it to contract adhesions to the peri-arthritic cellular tissue. This result is the more likely to occur when the synovial membrane has been freely incised, and when the foreign body has not been moved to any great distance from the opening into the joint. It is stated in this communication that the death-rate from direct extraction has, during the past fifteen years, been reduced from twenty-two to seven and a half per cent. The author endeavours to prove that this reduction is not solely due to the influence of Listerism. An analysis of fifty-four collected cases in which arthrotomy has been performed since 1863, indicates that a like success to that attained after the use of Lister's method, may be attained by other antiseptic methods, and, indeed, after the use of ordinary dressings. Of twenty-nine cases of floating body treated by arthrotomy, in which Lister's dressing had been applied, two were fatal; whilst of eighteen cases in which ordinary non-antiseptic dressings had been applied, only one had a fatal termination. Such a result, it is pointed out, need not cause surprise if one considers the success that has been attained in ovariotomy and enterotomy by M. Kœberle, who does not make use of Lister's dressing. Articular synovial membranes, when affected by chronic hydrarthrosis, acquire, like other serous membranes that have been exposed to the prolonged contact of morbid products, a certain degree of tolerance that renders them less irritable and less liable to become acutely inflamed. When chronic hydrarthrosis is associated with a floating body within the joint, the tolerance of the synovial membrane is increased through the nature of the original articular affection, since, in changes due to rheumatism, there is much less tendency to suppurative inflammation. In order to ensure success after direct extraction of an articular floating body, certain precautions must be taken in order to avoid acute synovitis. Such precautions consist in preventing the free access of air to the interior of the joint; in making a clean and small wound; in avoiding as much as possible irritation of the synovial membrane during the removal of the floating body; and in the exclusion of any septic agent. These evils, M. Gaujot holds, may be guarded against without resorting to any strict antiseptic treatment. In considering the question whether the extraction of an articular floating body can ensure a permanent cure, the author states that it is to be remembered that in most cases the foreign body does not constitute in itself the articular lesion. It is very often but an epiphenomenon superadded to primordial changes of a chronic arthritic character. The operation usually results in the disappearance of the phenomena due to the presence within the joint of a foreign body, but it does not remove the other results due to antecedent articular changes. There may be a cessation of the characteristic pain and less interference with locomotion, but the symptoms of chronic hydrarthrosis, such as swelling of the joint, crepitus, and a restricted range of articular movements, will too often persist. A decision as to the probability of recurrence should be based rather on the form and composition of the floating body, than on the condition of the joint. The prognosis is favourable in those rare cases in which this body consists of a fragment of bone, or a fibrinous concretion, whilst the indications are just the reverse when it presents one of those many forms which have their common origin in fibro-cartilaginous proliferation of the synovial elements. M. Gaujot states, in concluding, that the operation of direct extraction, though one of very little danger, ought not to be practised save in cases where the functional disturbance is severe, and palliative treatment has already been applied, but without success.

4. *Tillaux on the Tarso-Metatarsal Joints, with regard to Lisfranc's Operation.*—In a paper communicated on April 13th to the Société de Chirurgie of Paris (*Bull. et Mém.*, No. 4, 1881), it is stated by M. Tillaux that he has been struck with the disagreement amongst anatomists in their descriptions of the articulations of certain bones of the tarsus with each other, and also of the tarso-metatarsal articulations. The author is of opinion that there are special arrangements of the ligaments and synovial membranes, which have much practical importance, but which have received but little if any attention from authors. With regard, in the first place, to the interosseous ligaments, it is well known that Lisfranc considered, as the key of the articulation, the ligament (internal interosseous) which with its oblique fibres binds the inner part of the head of the second metatarsal bone to the outer surface of the internal cuneiform. In addition to this principal bundle, there is one to be considered which passes directly from the first cuneiform to the first metatarsal bone, and covers the external surface of the cuneo-metatarsal articulation. Another ligament of less surgical importance, but still demanding recognition, has its posterior point of insertion on the external surface of the external cuneiform bone. This bifurcates, and is attached by one of its divisions to the external surface of the head of the third metatarsal, and, by the other division, to the inner surface of the head of

the fourth metatarsal bone. It has the form of the letter Y, the tail being directed backwards. These two ligaments separate the metatarsal articular line into three distinct parts. Internally, there is the articulation of the first cuneiform with the first metatarsal bone; in the middle there are the articulations of the second and third cuneiform bones, with the second and third metatarsal bones; and, finally, the external group is formed by the articulation of the cuboid with the two last metatarsal bones. Each of these divisions of the tarso-metatarsal articulation has its special synovial membrane, and the interosseous ligaments constitute insurmountable barriers around the three serous cavities. There is also the important arrangement, that the synovial membrane of the articulations of the second and third cuneiform with the second and third metatarsal bones is continuous with that of the articulation of the scaphoid with the three cuneiform bones, through the intermediate portion occupying the space between the outer cuneiform bones. From these arrangements it follows that, in an anatomical sense, partial amputations of the foot are quite justifiable; for disarticulation of one of the metatarsal bones does not open a synovial sac common to all the tarso-metatarsal articulations, but only one of the three cavities that have been described. The author draws also another deduction from his description. Any amputation involving the articulations of the second and third cuneiform with the second and third metatarsal bones must open the synovial membrane between the scaphoid and the three cuneiform bones. If the amputation be performed on account of recent injury, such exposure of this synovial sac is not likely to have any serious results; but, if the surgical intervention be necessitated by caries, the evil will in all probability be only partially removed, from the fact of the disease having already attacked the articulation of the scaphoid with the three cuneiform bones. The author concludes that Lisfranc's operation, though it may be legitimately practised in cases of injury, ought to be rejected when intervention is necessitated by articular and osseous lesions of long standing.

5. *Bruns on Transplantation of Marrow.*—Prof. Bruns of Tubingen reports, in the *Archiv für Klin. Chir.*, Band xxvi, Heft 3, the results of some experiments he has lately made on animals, with the object of determining whether portions of transplanted bone-marrow can give rise to the formation of deposits of true osseous structure. An osteogenetic function of marrow, though indicated by the existence of an internal as well as of an external mass of callus after fracture, has been denied by many pathologists, and especially by Lebert, who held that the internal callus is only a displaced portion of the callus formed by the periosteum. It has been held also by Maas and many others, that the marrow and medullary membrane can only absorb and never form bone. The only cases in which any bone-producing action on the part of marrow can be proved in the human subject, are pathological instances of intramedullary deposition of bone without fracture, and without any coexistent formations of bone externally. Werner, by administering phosphorus with food, succeeded, even in full-grown animals, in bringing about almost complete ossification of the medullary cavity of long bones; and similar results have been attained by Busch through injections of mercury in small quantity into the arteria nutritia. That this internal formation of new osseous tissue in a long bone may be due to the action of specific stimuli, as well as to that of irritating agents introduced from without, may be proved by specimens of so-called osteosclerosis, in which disease the whole of the medullary cavity is often occupied by a very hard ivory-like substance. In order to decide whether or not this proved osteogenetic action of marrow be of a strictly pathological character, and analogous to the rarely observed ossification of muscular and testicular structures, Dr. Bruns instituted an extensive series of experiments. It was proposed to settle this question in the same way that the bone-forming capability of periosteum had been proved, namely, by transplantation. Experiments of this kind had, however, been previously made, first by Ollier and Maas, who obtained but negative results, next by Goujon, and afterwards by Backow, both of whom seem to have had some success. In Bruns's first series of experiments, performed in sixty instances on rabbits and fowls, and in six instances on young dogs, and in which the marrow was always transferred from one animal to another, there was invariably failure. In a second series of experiments on nineteen animals, in each of which experiments the transplantation was made on one and the same animal, deposits of true bone were found in twelve instances. Professor Bruns states that the animals that are best suited for experiments of this kind are young dogs. A portion of the shaft of the femur or tibia is resected, and the marrow contained in this resected fragment is removed in an unbroken cylinder. Portions of this cylinder are then inserted into fresh wounds on the breast or back of the same animal, either into the subcutaneous fat or in a superficial part of the muscular layer. The wounds are then carefully closed by means of sutures. The following changes, it is stated, take place in each instance of successful transplantation. A diffuse swelling is at once formed, which speedily begins to diminish, and is replaced about the fourteenth day by a movable nodule, in which bony tissue already exists in scattered foci. By the twenty-fourth day, these foci have usually amalgamated into a single piece of bone. Microscopical examination proves that the nodule, in its early stage, is composed of osteoid tissue, cartilage, and newly formed osseous tissue, and that the fully developed hard mass consists of true bone. These experiments, Professor Bruns asserts, prove that bone-marrow, completely separated from its connection with bone, and transplanted under the skin of the same animal, at a remote part of the body, may give rise to the formation of bone and cartilage. The swelling at the seat of transplantation ossifies in part directly, and in part by the conversion of cartilage and osteoid tissue into hard bone. The same process takes place in the formation of both the inner and the outer callus after fracture; and it may be assumed that bone is formed from the medulla in a way similar to that in which it is formed from the inner surface of the periosteum. It is held by Professor Bruns that in each instance the osteogenetic function is due to the same elements, namely, to osteoblasts, which exist in the inner periosteal layer, and are scattered amongst the elements of bone-marrow, particularly in young animals. Professor Waldeyer of Strasburg, who has examined these specimens, agrees in the view of the part played by the osteoblasts in the ossification of marrow, and is not disposed to admit any participation in this process of leucocytes of the marrow, wandering leucocytes from the blood, metamorphosed fat-cells, or newly formed spindle-shaped connective tissue-cells.

W. Johnson Smith.

6. *Charvot on Effusions of Blood at the Fold of the Elbow.*—Dr. Charvot relates (*Rev. de Chir.*, 10th Sept. 1881) six cases of this affection, of which, he states, an account is nowhere given, and which may give rise to most curious errors of diagnosis. The following are the author's conclusions. 1. Injuries which affect the elbow (directly, such as contusion, dislocation; or indirectly, such as a sprain or diastasis) frequently give rise to considerable effusion of blood throughout the whole of the upper limb, and especially at the fold of the elbow. 2. These extravasations of blood appear to arise from rupture of the vessels around the joint, and especially of the interior brachial. 3. The effusion of blood is not always completely absorbed, and is transformed into fibrinous clots, occupying the antero-internal aspect of the fold of the elbow in front of the articulation, and in the substance of the brachialis anticus. 4. The resulting tumour is as large as an egg, unequal, of cartilaginous or even osseous hardness. At first it is independent of the bone, but subsequently it may become attached to the humerus. 5. Thus the effusions of blood which partly fill up the coronoid cavity may interfere with the movements of the articulation, and considerably limit flexion. 6. They generally remain stationary for a long time, and are but little influenced by ordinary treatment. 7. Finally, they may give rise to errors of diagnosis, and may be mistaken for exostoses of the humerus, or tearing away of the coronoid apophysis, etc.

7. *Menard on Experimental Researches on the Forcible Straining of Genu Valgum.*—M. Menard studies in this paper (*Revue de Chir.*, 10th Sept. 1881) the lesions produced in forcible straining of the knee on the cadaver, whether with the hands or with the apparatus of Collin. Without entering, he says, upon the clinical side of the question, and without establishing a comparison between this operation and other modes of treatment, some slow and belonging to orthopædic practice, others rapid, such as osteotomy, his object is to clear up the mechanism, and to determine the lesions, of the purely operative proceeding, as constituting one of the elements which permit the question to be decided as to its fitness and uses in surgery. His conclusion is that in rapid straightening of the genu valgum by Delore's method, the operative proceeding carries the knee, not directly outwards, but outwards and backwards; at the same time, there is a tendency to bend the tibia inwards on the femur, and to force the extension of the knee. The articulation resists, therefore, not only by its external lateral ligament, but also by those which limit the extension, the posterior ligament and the intra-articular ligaments. This mechanism explains why it is the femur which comes away rather than the articulation. The lesion produced is very generally the stripping of the epiphysis from the inferior extremity of the femur and a large and considerable periosteal attachment, behind and external to the diaphysis. The employment of Collin's apparatus, or of any other similar one, appears to him preferable to manual force. With the hands, somewhat less lesions are produced; the detachment of the epiphysis is accompanied with crushing of the spongy tissue; moreover, the ligaments are apt to be torn away. The results appear to be very analogous in patients from two to six years of age. Beyond that age, it is a question whether the resistance of the femur becomes greater than that of the ligaments. He thinks that even then tearing of the ligaments must be very rare if the operation is well performed. This opinion is indeed only the expression of the results obtained by MM. Farabœuf and Terrillon.

8. *Coates on a New Method of Operating upon Internal Piles.*—In the *Brit. Med. Jour.*, Aug. 1881, p. 350, Mr. W. M. Coates describes the following plan for the removal of internal hæmorrhoids. A specially constructed clamp, a diagram of which is given, embraces as much of the piles on one side as possible, and is securely fastened. Needles, armed with the finest carbolised catgut, are now passed beneath the clamp at intervals of an eighth of an inch. As each thread is passed, the ends are held against each buttock by an assistant. The piles are then cut off smoothly, quite close to the outside of the clamp, the blades of which are then separated, and any pumping artery secured with the finest catgut. When all bleeding has ceased, and the clamp has been removed, the edges of the little wound are brought close together, and secured by the sutures; then, after being cleansed with a one per cent. carbolic wash, it is dried and painted with collodion or styptic colloid. A two-grain opium suppository is then placed in the rectum, and the operation is finished, unless there be more than one mass of piles to remove. In sixteen cases where this mode of procedure has been carried out, the results have been uniformly satisfactory.

9. *Cheyne on Retropharyngeal Abscess opened from the Outside of the Neck.*—In the *Med. Times and Gaz.*, Aug. 1881, p. 254, Mr. Watson Cheyne reports a case of retro-pharyngeal abscess, in a man aged 42, in which an incision was made at the posterior border of the sterno-mastoid muscle, commencing about one inch below the mastoid process. The deep cervical fascia was carefully divided, and by the finger and forceps the soft tissues were pushed aside, and a channel burrowed to the back of the pharynx. The wall of the abscess was then opened, and a drainage-tube introduced. The man was discharged cured after twenty days.

10. *Coombs on a New Method of Treating Subcutaneous Nævi.*—Dr. Carey Coombs, in the *Lancet*, Aug. 1881, p. 374, suggests that, in destroying nævi by the electric cautery, two silver wires should be passed through the growth, parallel to each other, but a quarter of an inch apart. If each wire, separately, be connected with a proper battery, great heat is produced during the one or two seconds of contact; the ends of the wires are then twisted together and left *in situ*, ready for another application after the end of a few days. By this plan, less pain is caused than by the introduction of needles at each operation, and a single cell (bichromate, Grove's, or Bunsen's) is sufficient, the only resistance being the fine silver wire. In a severe case, where the fossa, on the left side of the nose of an infant nine months old, was filled up by a large subcutaneous nævus, three applications were sufficient to produce a perfect cure.

11. *Bryant on Warren's Radical Cure for Hernia.*—In the *Lancet*, August 1881, p. 374, a case is reported, in which, under Mr. Bryant's observation, at Guy's Hospital, in August 1880, Dr. Joseph H. Warren performed his operation for the radical cure of a reducible inguinal hernia. After returning the hernia, Dr. Warren injected twenty drops of the prepared solution of white oak-bark into the tissues around the neck of the sac. The results were, so far as Mr. Bryant could judge, satisfactory, but the patient failed to report himself later than six weeks after leaving the hospital. [In the *Gaz. des Hôpitaux*, for September 1854, M. Jobert gives an account of three cases of inguinal hernia radically cured by injecting

iodine into the neck of the hernial sac. M. Velpeau had, ten years previously, first noticed the advantages of iodine injection in such cases.—*Rep.*]

RICHARD NEALE, M.D.

PATHOLOGY.

RECENT PAPERS.

1. GRANCHER.—On Scrofula and Tuberculosis. (*Le Progrès Méd.*, 1881, No. 21.)

2. LETULLE.—On the Existence of Cardiac Lesions in Locomotor Ataxy. (*Gaz. Méd.*, Nos. 39 and 40; *Centralb. für die Med. Wissen.*, 1881, No. 17.)

3. DEUTSCHMANN.—The Tubercular Virus. (*Centralbl. für die Med. Wiss.*, 1881, No. 18.)

4. WAGNER.—Chronic Bright's Disease. (*Deutsch. Arch. für Klin. Med.*, Band xxvii.)

5. LANGE, F.—Blood from beneath the Permanent Antiseptic Dressings. (*New York Med. Record*, July 1881.)

6. SUDAKOFF.—The Relation of Tuberculous Intestinal Ulcers to the Ulcerative Processes of the Lungs. (*Inaug. Diss.*, St. Petersburg, 1880.)

7. TAPPEINER.—The Artificial Production of Tuberculosis in Dogs by Inhalation. (Virchow's *Archiv*, Band lxxxii.)

8. KRATTER.—On Adipocere. (*Zeit. für Biologie*, Band xvi.)

9. PICOT.—Pott's Disease associated with Pulmonary and Meningeal Tuberculosis, Thrombosis of the Left Anterior Cerebral Artery, and Cerebral Softening. (*Gaz. Hebdom. des Sciences Méd.*, April 2, 1881.)

10. GRAWITZ.—The Theory of Prophylactic Inoculation. (Virchow's *Archiv*, Band lxxxi.)

11. KEY and KJELLBERG.—A Case of Rupture of the Septum Cordis. (*Hygiea*, and *Nord. Med. Arkiv.*, Band xiii, Heft 2.)

1. *Grancher on Scrofula and Tuberculosis.*—M. Grancher, in an address to the Société Médicale des Hôpitaux on the relation of scrofula and tuberculosis (*Le Progrès Médical*, 1881, No. 20), gives the following as his conclusions. 1. Tubercle is a fibro-caseous neoplasm which developes in three stages; this development may be incomplete, being arrested at the early stages, or complete, requiring for its production some months or the whole of life. 2. Pathological anatomy and experimental pathology agree in restoring most of the so-called scrofulous affections to the category of tuberculosis. 3. Lupus and superficial inflammations of the skin and mucous membrane will, probably, in their turn be similarly classed. 4. The needs of practice forbid our confounding all tubercular affections; it is convenient to retain the word scrofula to designate those which are slight and curable tubercular affections.

2. *Letulle on the Existence of Cardiac Lesions in Locomotor Ataxy.*—M. Letulle (*Gaz. Méd. de Paris*, Nos. 39 and 40, 1880; *Centralb. für die Med. Wiss.*, No. 17, 1881) publishes two cases of insufficiency of the aortic valves with extensive atheromatous degeneration of the arteries, occurring in the course of locomotor ataxy. He quotes the views of Berger, Rosenbach, and Grasset, as to frequency of this connection, and suggests that the wide-spread atheromatous degeneration of the vessels explains the coexistence, as this degeneration of the smallest spinal arterioles probably gives rise to the disease of the posterior columns.

3. *Deutschmann on the Tubercular Virus.*—M. Deutschmann (*Centralbl. für die Med. Wiss.* 1881, No. 18) says that, when tubercular pus is allowed to stand, preferably in a vessel closed with cotton-wool, it separates into two layers, the upper being serum containing numerous small elements identical with the 'monas tuberculosum' of Klebs and Schüller, but free from cells; the lower consisting of tubercular pus. He found that the clear serum, when injected into the anterior chamber of rabbits' eyes, caused no tuberculosis, while the lower layer invariably gave rise to the specific product. A large quantity of serum and a very small quantity of pus, gave the same results. The clear fluid from the anterior chamber of a child's eye, which presented all the clinical appearances of tuberculosis of the iris, and contained the characteristic micrococci, gave negative results when injected into a rabbit's eye.

4. *Wagner on Chronic Bright's Disease.*—E. Wagner (*Deut. Arch. für Klin. Med.*, Band xxvii, s. 218; *Centralbl. für die Med. Wiss.*, 1881, No. 27) thinks that the so-called three stages of Bright's disease may overlap each other, and divides the second stage into the following three forms, which he illustrates by cases. *a.* Enlarged and diffusely diseased kidneys; glomerular capsule-epithelium greatly proliferated; atrophy of the glomerular capillaries; fatty degeneration of the epithelium of the convoluted tubes; dilatation of the tubules; numerous hyaline, not often fatty cylinders; stroma swollen by œdema, only in places, and particularly round the glomeruli, filled with round cells; urine scanty, under 200 cubic centimètres daily, clear, very albuminous, of high specific gravity, containing numerous hyaline and fatty casts, white blood-corpuscles, and fatty granule-cells; great anæmia; marked œdema; rapid wasting; later, hypertrophy of the left ventricle. *b.* Kidneys which consist of old atrophied patches, and recent inflammatory tissue, of normal size, or enlarged, smooth or slightly granular on the surface. It is a commoner form than the preceding. The urine varies in the course of the disease, being at times like parenchymatous nephritis, at others as it is in contracted kidney. Usually, hypertrophy (generally marked) of the left ventricle; mostly pulmonary symptoms and retinitis; course chronic. Death from uræmia, dropsy, cerebral hæmorrhage, croupous pneumonia, lobular pneumonia, cardiac failure, etc.; urine generally pale, and containing blood. *c.* Ordinary granular kidneys. Here he reckons the secondary contracted kidney.

ROBERT SAUNDBY, M.D.

5. *Lange on Blood from beneath the Permanent Antiseptic Dressing.*—Dr. F. Lange presented to the Surgical Society of New York (*New York Medical Record*, July 1881) a specimen of blood with the following history. It was removed from a patient who two weeks previously submitted to amputation of the breast and removal of the contents of the axilla. The permanent antiseptic dressing was applied. On account of the extremely nervous condition of the patient, Dr. Lange removed the dressing on the fifth day, when it was found that the wound had healed by first intention. In attempting to remove the dressing, one of the flaps was raised, and hæmorrhage occurred beneath it. The blood underwent the same changes as occur in cases of subcutaneous injury, but much remained, which was aspirated six or seven days afterward. To ascertain its character, about two ounces of a dark entirely fluid blood were withdrawn, which was examined microscopically, and found to contain living bacteria. The number of the white blood-corpuscles was not increased. Some of the blood-corpuscles, both red and white, were undergoing disintegration. A number of the red ones were almost colourless, hardly visible; in the majority they were

stellated and shrivelled. Dr. Lange thought that the bacteria entered during the operation and remained, but, because of the antiseptic measures, were of such low vitality that they were unable to act upon this mass of blood. The patient remained entirely well.

6. *Sudakoff on the Relation of Tuberculous Intestinal Ulcers to the Ulcerative Processes of the Lungs.*—The question as to the relation of intestinal ulcers to simultaneous processes in the lungs not being sufficiently settled, the author, under the supervision of Professor Iwanowski, undertook to write an essay on the above-mentioned subject (*Inaug. Dissert.*, St. Petersburg, 1880), availing himself of the results of *post mortem* examinations obtained at the Pathologo-Anatomical Institution of the Medico-Surgical Academy. In the course of 12½ years, records of 4,342 necropsies had been made. Amongst these were 1,260 cases of chronic disease of the lungs, and 940 of intestinal ulceration. Of tuberculous ulcers of the intestine 679 cases were noted; and 20 were mostly associated with chronic diseases of the lungs, and only in one case were the lungs sound. Of 227 cases in which no destruction of the pulmonary tissue had yet shown itself, 107 (47.13 per cent.) were found with tuberculous ulcers of the intestine; while in 55 (76 per cent.) of the cases in which breaking down of the lung-tissue had commenced, these ulcers existed. Of those cases in which tubercle was present in the lungs, 71.42 per cent. had them in the intestine also. Simultaneous tuberculosis of the liver was observed in 227 cases, of the peritoneum 87 times (69 per cent.) The author arrives at the following conclusion. Tuberculous ulcers of the intestine are not so frequent as Niemeyer and Kolberg supposed. They are also observed in cases in which as yet a formation of tubercles in the lungs has not begun. Tuberculosis is often complicated by the formation of follicular ulcers. Intestinal tuberculosis without affections of the lungs is very rare.

7. *Tappeiner on the Artificial Production of Tuberculosis in Dogs by Inhalation.*—Resuming his former experiments (see London Medical Record, May 15, 1879) the author (Virchow's *Archiv*, Band xxxii) tried to produce artificial tuberculosis in dogs by means of inhalation of cheesy scrofulous pus. For ten days, two dogs were made to inhale about half a gramme of the pus with 100 grammes of water; while two other dogs inhaled an equal quantity of phthisical sputa. The former two remained healthy. The experiment was then repeated upon two other dogs with a negative result. The inhalation of purulent bronchitic sputa had the same effect. When, after twenty-three days, the dogs which had inhaled phthisical sputa were dissected, there were found in both lungs and in the spleen numerous small miliary nodules of a grey colour, and reaching the size of a lentil, which Grawitz pronounced to be real tubercles, while Friedländer characterised them as insignificant centres of hepatisation in the lungs, and as small vascularised lymphoid nodules in the spleen. Of four dogs which, in order to determine the period of incubation, were likewise made to inhale large quantities of phthisical sputa, two, after the lapse of 13 and 19 days respectively, showed no sign of tuberculosis, while the third, which was dissected after two months, had catarrhal pneumonia and numerous miliary nodules in the lungs and pleura. There are no statistics about the fourth dog. The author, from these and previous experiments, concludes that the inhalation of phthisical sputa never fails to produce tuberculosis, but that the period of incubation is between 19 and 23 days; and that the inhalation of coagulated scrofulous pus from lymphatic glands, like the inhalation of purulent bronchitic sputa, has a negative result.

8. *Kratter on Adipocere.*—F. Kratter of Graz says (*Zeitschr. für Biologie*, Band xvi, 1880) that adipocere is of importance, not only to the pathologist, but also to the coroner, who has to do with exhumed or drowned bodies. The author has abandoned the common method of macerating in troughs, or interring the objects of examination, but has placed them in glass vessels, in order to follow up daily the changes which they undergo. It was found to be of no consequence whether the vessel was covered or open, whether well-water or river-water was employed. The water, however, was changed every other day. The author arrived at the following conclusions. There are three different stages observed. 1. The stage of putrefaction, or preliminary stage, occurs without exception, and never lasts less than three weeks. No macroscopic changes are then discovered. 2. The stage of saponification is marked by the subcutaneous adipose tissue plainly changing into adipocere, which is recognised by the tissue becoming white, opaque, crumb-like, and stiff. This transformation progresses from the interior towards the surface. 3. The stage of saponification of the albuminous substances never commences before the end of the third month, and often later than that. Microscopic examination proves adipose degeneration of the subcutaneous cellular tissue to exist already towards the end of the first stage; in later stages, adipose degeneration of the muscular structure, and of the medulla, with a certain degree of decalcination.

9. *Picot on Pott's Disease associated with Pulmonary and Meningeal Tuberculosis, Thrombosis of the Left Anterior Cerebral Artery, and Cerebral Softening.*—The chief points of interest in this case are (*Gaz. Hebdomadaire des Sciences Méd.*, April 2, 1881): (*a*) the localisation of tubercles in the course of the anterior cerebral arteries; (*b*) thrombosis of the left anterior cerebral artery, and consequent softening of the corpus callosum, the convolution of the corpus callosum, and part of the internal aspect of the frontal convolutions; (*c*) inflammatory softening, dependent on meningitis, of the internal and anterior part of the right hemisphere; (*d*) the absence of motor and sensory disorders, the lesions being situated outside the psychomotor and sensory centres. It is interesting to note that, during life, the only mental symptom was some amount of intellectual torpor. W. B. Hadden, M.D.

10. *Grawitz on the Theory of Prophylactic Inoculation.*—The author (Virchow's *Archiv*, Band lxxxi), choosing for experiment the penicillium, aspergillus, and oïdium lactis, on account of their large size, succeeded, by successive cultivations in alkaline solid nutrient substances, in making these moulds accustomed to the nutrient conditions of the animal organism, so that they could be changed to parasites. As this artificial cultivation proceeds many transition steps are obtained in the adaptation which they undergo, until such a malignant form is reached, that very small injections of the fungus into the veins are sufficient to fill the animal with the organism. Grawitz finds that the different organs are affected in a very constant succession after injections into the blood-vessels. The favourite seats of the fungus-formation are the kidney and liver, which are attacked by quite lowly acclimatised spores. In a yet further stage of the cultivation, the muscle and intestine, and still

later the spleen, lymphatic glands, and medulla of the bones are affected; while in the highest grade of malignity little knots of the fungus are observed in the lungs and brain. The author ascribes the stronger resisting power of certain organs, for instance, the brain, to their greater nutritive energy allowing them to render opposition to the lowly cultivated mould in the struggle for the nutritive material. Just as in culture experiments a struggle is observed between co-existing fungi, out of which the mould in the ascendant goes forth strengthened, so a similar struggle for existence between the animal and plant cells was induced by the injection of large doses of lowly malignant, or small doses of highly malignant mould. By inoculation a protection was uniformly won against later injections, the resistance being in proportion to the violence of the inoculation affection. The injection of small quantities of malignant mould—which developed a mild form of the particular mould-disease—caused a complete immunity for the rabbits, if, after the lapse of four to six weeks, fatal quantities of highly malignant mould were introduced. The endurance of the power of resistance rests on inheritance; for, once won, it is transmitted from cast-generation to cell-generation; yet this peculiarity of the tissues is lost with time, therefore a periodical inoculation is necessary. By this theory of an acquired resistance obtained by the component elements of the tissues of the body, Grawitz explains the protection afforded by an attack of scarlatina, measles, etc., and small-pox, against future contagion; and the protective influence of vaccination in the latter disease.

FREDERIC S. EVE.

11. *Key and Kjellberg on a Case of Rupture of the Septum Cordis.*—Professor Axel Key and Dr. Kjellberg relate in *Hygiea* for 1880 (*Nord. Med. Arkiv*, Band xiii, Haft 2), the case of a man, aged 75, previously healthy, who, in July 1880, was attacked with pain in the chest, eructations, general malaise, and pain in the left arm. He recovered so much as to be able to go out daily, but soon afterwards had an attack of weakness in the right arm. From this he had recovered somewhat a month later; but one day after dinner he was suddenly seized with pain in the region of the stomach, a sense of oppression in the chest, and pain in the back on the left side. In the evening, his hands and feet became cold. Over the apex of the heart, and though a great extent, a sharp systolic murmur was heard, replacing the first heart-sound, the heart's action was regular; the pulse could scarcely be felt in the right arm, and not at all in the left. He died during the night. At the necropsy, the heart was found to be somewhat hypertrophied. Nearly the whole of the septum ventriculorum was separated from its connection with the posterior muscular wall, and the posterier wall of the right ventricle was cleft for a very considerable extent. The rent began at the upper part of the left ventricle, about two-fifths of an inch from the aortic valves, and extended to the apex of the heart; for about four-fifths of an inch at the lower part it was complete, so that the two ventricles communicated. At the upper part, the rupture extended into the posterior wall of the right ventricle, separating it into two layers. Nearly the whole surface of the rupture was covered with a thin and rather adherent layer of fibrin. The muscular tissue in general was flaccid, of a deep yellowish grey colour. There were no essential changes in the valves or in the endocardium. The coronary arteries were in a state of advanced atheromatous degeneration, especially the right, the lumen of which, where it bent round the right border of the heart, was entirely filled with a firm adherent greyish blue thrombus, rather more than an inch and a half long, and ending in a firm conical point. About two-fifths of an inch within, at the posterior part, the artery divided, and sent down in the ventricular furrow, behind the septum, a descending branch, which principally supplied blood to the ruptured part. No large ruptured vessel could be detected. Dr. Key says that the obstructing thrombus, in connection with the atheromatous degeneration, probably played the chief part in the production of the rupture. Probably, when the thrombus was formed, a rupture of a vessel with hæmorrhage into the muscular tissue took place, producing distension of the muscular structure, which at last burst into the left ventricle, after which the rupture extended.

A. HENRY, M.D.

OBSTETRICS AND GYNÆCOLOGY.

RECENT PAPERS.

1. BAKER, MOSES.—On a successful case of Cæsarean Section necessitated by Uterine Fibromata. (*Amer. Jour. of Obst.*, July 1881.)

2 FAUCON.—On the Treatment of Prolapsus Uteri. (*Archives de Tocologie*, May 1881.)

3. GUSSEROW.—Annual Report of the Lying-in Charity in Berlin. (*Charité-Annalen*, 1881.)

4 LAPPONI.—Puerperal Infection in a Man. (*Rivista Clinica di Bologna*, December 1880.)

5. LEBLOND, A.—Amputation of the Neck of the Uterus in Chronic Metritis. (*Intern. Med. Cong.*, Lond. 1881.)

6. MOUAT, F. J.—Statistics of Childbirth in the Lying-in Wards of the Workhouse Infirmaries of England and Wales for the ten years 1871-80.

7. REIMANN.—Birth of a completely broken-up Fœtus. (*Centralb. für Gynäk.*, No. 16, 1881.)

8. ROTHE, C. G.—On Puerperal Fever. (*Bete's Memorab.*, 1881, Heft 5.)

9. VEIT.—On the Stitching of freshly Lacerated Perinæa. (*Deutsche Med. Woch.*, 1881, No. 20.)

10. VOORHEES, S. R.—Hysteralgia during Gestation. (*Obstet. Gaz. Cin.*, June 1881.)

11. VAN DE WARKER, ELY.—Occlusion of the Canal after the Operation for the Repair of Laceration of the Cervix Uteri. (*Ibid.*)

12. WASSEIGE, A.—Practical Essays on the Last Modification of Tarnier's Forceps. (*Annal. de Gynéc.*, July 1881.)

13. DE ZOUCHE.—A case of Battey's Operation. (*Aust. Med. Jour.*, April 15, 1881.)

14. TERRIER.—Incomplete Removal of Ovarian Cysts. (*Revue de Chir.*, 10th Aug., 1881.)

1. *Baker on a Case of Cæsarean Section.*—The patient, aged 34, primipara, was found, on examination, to have one fibroid tumour filling the pelvis so that the os uteri could only be reached with great difficulty, and another fibroid mass above and to the right of the umbilicus. The pelvic tumour could not be pushed up. Although she was in labour, the pains were not expulsive, and it was not until three days after the rupture of the membranes that Dr. Baker proceeded to perform Cæsarean section. The first incision was made from a point two inches above the pubes, to two inches above the umbilicus in the median line. The uterus was incised in the same manner from below upwards, the wound being about six inches in length. The head was in the

following position: the face presenting towards the mother's left groin; the right side of the head resting on the top of the os pubis. The head was not only crowded forward by the lower tumour, but was pressed downward by the upper tumour, and was thus flexed laterally towards the left shoulder, and it was firmly held in this position for at least six weeks before the operation, which fact had made it resemble a third uterine tumour. The right parietal and frontal bones received quite a deep indentation from pressure against the brim of the pelvis. The child was lifted out of the uterus by the axilla, and separated from the cord in the usual way. The placenta was attached to the posterior wall of the uterus between the two tumours. It was peeled off. Severe hæmorrhage ensued, which was arrested by pressure with a towel wet with cold carbolised water. The uterine wound was closed by four carbolised silk sutures, passed in near the mucous surface and out through the peritoneal coat. The abdominal wound was closed by five deep silver wires, and four superficial carbolised silk sutures. The wound was supported with broad strips of adhesive plaster. On the eighth day after the operation, phlegmasia dolens set in in the left leg. By the thirtieth day she had fully recovered both from the operation and from the phlegmasia. About the tenth day after she got up, the cicatrix suppurated in two places; one just below the umbilicus, the other half way between the umbilicus and pubes. The lower sinus allowed the passage of a probe three inches into the body of the uterus. The upper sinus discharged for about three months, when the tumour disappeared and the sinus healed. The lower opening was closed by cautery. The uterus remained adherent to the walls of the abdomen at the site of the lower fistulous opening. The lower tumour still fills the pelvis. The patient feels and looks perfectly well.

5. *Leblond on Amputation of the Cervix Uteri.*—Dr. Leblond has restricted himself, in this paper, to showing that there are certain cases of chronic metritis which resist all treatment, except amputation of the cervix uteri. M. Leblond enumerates the anatomical lesions which occur during the first period, the period of softening or infiltration. It is during this period, when the cervix is large and covered with ulcerations which bleed on the slightest touch, that the operation is specially applicable. The amputation, in the author's experience, produces retraction of the uterine tissue by the production of fibres of connective tissue, and when it has become cicatrised presents the appearance of a nulliparous uterus. M. Leblond uses the galvano-cautery wire and does not draw down the cervix whilst amputating. The amputation is performed through the speculum, so that the operator sees what is going on.

6. *Mouat on Metria in Workhouse Infirmaries.*—In the institutions within the registration-area of London, there were 204 maternal deaths in 23,117 deliveries, or 1 in 113. In the provinces there were 561 maternal deaths in 64,609 deliveries, or 1 in 115. This gives the death-rate during the ten years 1871-80. This death-rate was less in the workhouse infirmaries than in the entire population, and the whole record appears to Dr. Mouat to establish the fact that a pauper woman delivered in a workhouse lying-in ward has as fair a chance of life as a poor woman confined in her own home.

7. *Reimann on the Birth of a Completely Broken up Fœtus.*—The patient, aged 45, had had eight children, and, three years before, had had a miscarriage. Since that time she had suffered from a vesico-vaginal fistula, which had been operated upon twice without any benefit. Menstruation, which had otherwise been quite regular, had ceased three months; but, a few days before she saw Dr. Reimann, severe hæmorrhage had set in, accompanied by the discharge of some fœtal bones and pieces of flesh. On examination, the os uteri was hard, but open sufficient to allow the passage of a finger. The internal os uteri was occupied by a flat bone, which prevented the finger from entering the uterus, and which could neither be pressed back nor drawn out. Two days later, Dr. Reimann removed the bones from the uterus by means of a small forceps, through a Sims's speculum. The extracted bones appeared to be those of a six months' fœtus. The larger bones were completely macerated; it was only on the bones of the thorax and pelvis that any traces of muscular tissue could be found. No traces of the intestines, placenta, or membranes could be found. The uterine cavity was washed out with a weak solution of carbolic acid, and the patient rapidly recovered. On later examination, Dr. Riemann found a vesico-vaginal fistula close to the anterior lip of the os uteri. He operated for its closure, but only with partial success. How long the dead fœtus had remained in the uterus, could not be determined. In any case, the cessation of the menses three months before the removal of the fœtus had no connection with the time the child had been in the uterus. On the other hand, it could not have been more than two and a half years *in utero*.

11. *Van de Warker on Occlusion of the Canal after Emmet's Operation.*—Dr. Ely Van de Warker relates the case of a lady in whom he found the vaginal cervix elongated, hypertrophied, and bilaterally lacerated, with ectropion. She was operated on by Dr. Emmet for the repair of the laceration. Locally and generally her health improved after Emmet's operation, with one exception; this was increasing dysmenorrhœa. The symptoms of obstruction of the cervix gradually augmented as months passed, until the woman's health began to give way. The canal of the cervix could not be dilated, owing to the impossibility of finding the os externum. On examination, the vaginal portion presented a conical appearance, no os uteri could be seen, and the uterus was retroverted. Exploration of the cervix by a small probe showed a minute opening on the sloping lateral surface, about one eighth of an inch from the extremity of the cervix. The probe passed in about half an inch, and was arrested. The canal was evidently tortuous, and surrounded by cicatricial tissue. The probe being used as a guide, it was followed up by a small knife; and when more room was thus gained to manipulate the probe, it made another advance, which was again followed up by the knife. In this manner, the os internum was with some difficulty passed. The canal thus cut out of the dense tissue composing the cervix, was further enlarged bilaterally. The canal was kept open by an intra-uterine stem. The patient did well.

13. *De Zouche on a Case of Double Oophorectomy.*—The patient, aged 30, had been well until her confinement. After the lying-in was at an end, severe ovarian pain appeared. The pain so increased in severity that, in spite of all remedies, it became intolerable. For days she could take no sustenance, except a cup of tea. She seldom slept a whole hour at one time. Sometimes she would be unable to stand, at other times she would roll about the floor in pain. She had not been twenty yards from the

house since her confinement, as walking caused her much pain. Dr. de Zouche, therefore, performed oöphorectomy by the abdominal section. Immediately after the operation both ovaries were weighed. The left weighed 120 grains, the right 113 grains. Both contained a number of cysts about the size of a pea. On cutting into one of these, a clear watery fluid spouted out. Carbolic precautions were used. On the twenty-ninth day she was able to sit in the garden. The patient has been able to eat and sleep well since the operation. The improvement has been decided, and the patient is glad the operation has been done. FANCOURT BARNES, M.D.

14. *Terrier on Incomplete Removal of Ovarian Cysts.*—M. Terrier (*Revue de Chir.*, 10th Aug. 1881) puts the following question. Does the incomplete removal of ovarian cysts, resulting from the existence of extensive solid or vascular adhesions to important organs, give, as has been said, deplorable results, and should it be avoided uniformly, as Kœberlé advises; or is it, on the other hand, an operation which is acceptable, and even a method counselled sometimes by prudence, and not by necessity (Péan)? M. Terrier relates some private cases, and examines the recent publication of cases and statistics by Spencer Wells and Péan, with the following results. 1. Incomplete operations ending with the opening of the cyst, suture of the walls to the abdominal wound, and drainage, give very different results, according to the nature of the cystic tumour. 2. When the cyst is unilocular—as serous cysts and dermoid cysts of the broad ligaments are—the results may be excellent, and the cystic cavity ends by being completely filled up. 3. The same result s perhaps possible in certain cysts which are unilocular from a clinical point of view, but which anatomical pathologists class as multilocular cysts. 4. When the cyst is multilocular, and when the cystic walls are clothed with vegetation, the results are very different. The tumour tends constantly to relapse, the abdominal fistula persists, and the interminable suppuration exposes the patient to chronic septicæmia and exhaustion. 5. Finally, it is to be noted, both in the case of young and of multilocular cysts, that there is a possibility of the rapid development of a tumour already pre-existing on the ovary, which has not been touched, and of which the conditions could not be verified at the time of operation.

NEUROLOGY AND PSYCHOLOGY.

RECENT PAPERS.

1. STEWART, GRAINGER.—On Paralysis of Hands and Feet from Disease of Nerves. (*Trans. of Medico-Chir. Soc. of Edinb.*, March 1881.)

2. HAMMOND.—On Thalamic Epilepsy. (*Neurological Contributions*, No. 3.)

3. HAMMOND.—On Myxœdema, with Special Reference to its Cerebral and Nervous Symptoms. (*Ibid.*)

4. HAMMOND.—On the Therapeutic Use of the Magnet. (*Ibid.*)

5. HAMMOND.—On Obscure Abscesses of the Liver, their Association with Hypochondria and other forms of Mental Derangement, and their Treatment. (*Ibid.*)

6. WRENCH, E. M.—The Effect of a Fixed Idea. (*Lancet*, Jan. 1880.)

7. TUKE, D. HACK.—Intemperance in Study. (*Jour. of Mental Science*, Jan. 1880.)

8. SHAW, J. C.—On Tendon-Reflex in the Insane.

1. *Stewart on Paralysis of Hands and Feet from Disease of Nerves.*—In a paper read before the Medico-Chirurgical Society of Edinburgh, on March 2nd, 1881, Dr. Grainger Stewart has called attention to a form of paralysis, of which hitherto little has been known. He describes three cases of what he named peripheral paralysis; and, in one instance, he was enabled to verify his diagnosis by *post mortem* examination. In his own words, the clinical characters of this disease are 'the co-existence of symptoms referable to the sensory, the motor, and the trophic functions of the nerves; the localisation of the symptoms in the feet and hands, the intensity being greatest at the most distal points, and the affection corresponding to certain districts of the extremities, and not to the distribution-areas of particular nerves'. He remarks that such symptoms cannot be referred to disease, either of the brain or of the spinal cord; and hence he infers, by a process of exclusion, that the nerves themselves are involved. In the fatal case, the median, ulnar, and tibial nerves were particularly affected. Microscopically, it was found that certain bundles of nerve-fibres had undergone what appeared to be fatty degeneration. The axis-cylinder was swollen, and presented a number of rounded masses resembling colloid bodies in every respect. In some instances, these bodies had undergone fatty degeneration, and the result was the formation of compound granular corpuscles. Some of the nerve-fibres were completely destroyed, and were replaced simply by fibrous tissue. Secondary degeneration of the columns of Goll and of the direct cerebellar tracts was observed in the cord. Dr. Grainger Stewart thinks that the change could not possibly have arisen in the muscles, since the sensory disorders preceded the motor. Unfortunately, he is unable to give any precise information regarding the nerve-endings, but he strongly inclines to the belief that the disease originated there, and spread upwards. From the fact that the disease begins simultaneously, or nearly so, in both hands and feet, it seems probable that the affection depends on some constitutional cause. After noticing the few cases of this disease on record, Dr. Stewart proceeds to give a summary of its clinical features. The commencement is usually acute, and attended by more or less pyrexia. The first changes occur in the sensory functions. Sometimes there is acute pain, but more frequently numbness or tingling in the affected parts, and, at the same time, more or less anæsthesia. These sensory disorders occur usually in both hands and feet simultaneously. Paresis affects the most distal parts at first, and then extends up the limb from one group of muscles to another. In rare cases, the normal functions of the bladder and rectum are interfered with. The skin-reflexes are sometimes absent, but are present to an exaggerated extent on the application of a strong stimulus. The patellar reflex is usually lost at an early stage, but ankle-clonus may be present even when the 'knee-jerk' is absent. Voluntary motion rapidly diminishes, the patient at the end of a week often being unable to flex or extend the toes and fingers. There is no marked loss of co-ordinating power. Trophic changes are indicated by the rapid muscular atrophy, by congestion and glossiness of skin, by malnutrition of the nails, and by some degree of œdema. The progress of the disease is towards recovery, but there is a marked tendency to recurrence. It is probable that many cases, which were formerly ascribed to spinal congestion and myelitis, are really

dependent on a similar change to the one now described. This disease resembles Landry's acute ascending paralysis; but in this latter affection the motor functions only are involved and no marked pathological change has been noted. It may be, however, that these processes are related. Dr. Grainger Stewart suggests that the premonitory, but transitory, attacks of paralysis, involving certain nerves in locomotor ataxy, may be explained by assuming them to be due to peripheral disease. Dr. Hamilton's pathological researches have led to the same conclusion, and a further corroboration is afforded by the beneficial results of nerve-stretching. As regards treatment, ergot of rye has been found useful in the early stages; and strychnia, with friction, electricity, and exercise, when the acute period has passed. [It is interesting to observe, that M. Charcot, in his *Leçons sur les Localisations dans les Maladies du Cerveau et de la Moëlle Epinière*, pp. 261-262, suggests that secondary spinal degeneration will doubtless be found, in some cases, to be dependent on lesion of the peripheral nerves. He was then acquainted with only three or four cases of this kind. In all, the lesion was situated external to the cord, on the roots of the cauda equina. In the lumbar region, the whole posterior column was degenerated, but higher up the columns of Goll alone were affected.—*Rep.*]

2. *Hammond on Thalamic Epilepsy.*—Dr. Hammond (*Neurological Contributions*, No. 3) narrates some cases, the prominent symptoms of which were hallucinations followed by loss of consciousness. On physiological and pathological grounds, he infers that the seat of this form of epilepsy is in the optic thalami, and ascribes the loss of consciousness, which he believes to be an essential element of epilepsy, to extension of the disorder to the cortex. Muscular spasm was absent in all the cases.

3. *Hammond on Myxœdema, with special reference to its Cerebral and Nervous Symptoms.*—In a paper read before the American Neurological Association, June 16, 1880 (*Neurological Contributions*, No. 3), Dr. Hammond, after giving a typical case of this disease, criticises the opinions of various observers, and concludes that the phenomena of myxœdema are the result both of central and of peripheral changes.

4. *Hammond on the Therapeutic Use of the Magnet.*—In two out of nine cases of chorea in which the magnet was used (*Neurological Contributions*, No. 3), a complete cure was effected in a few minutes. One patient, who had lost the power of speech, regained it after half-an-hour's application of two horse-shoe magnets; one being placed over the cervico-dorsal region of the spine, the other over the front of the sternum.

5. *Hammond on Obscure Abscesses of the Liver, and their Association with Mental Derangement.*—The first part of this paper (*Neurological Contributions*, No. 3) was originally published in the *St. Louis Clinical Record* for June 1878, and the second part, giving additional observations, was read before the New York Neurological Society, June 3, 1878. Dr. Hammond believes that there is a marked association between mental depression, amounting in many cases to distinct hypochondria, and hepatic abscesses, which are generally unconnected with dysentery and multiple in the same patient. He believes that such abscesses are much more common than is usually supposed, and that they frequently exist without local symptoms. He advises that they should be aspirated as early as possible, and before adhesions are formed. Altogether, he has tapped the liver forty-three times for abscesses connected with hypochondria, and has been successful in obtaining pus in fifteen of the cases. Dr. Hammond thinks that these hepatic abscesses are secondary to the cerebral disturbance, and brings forward experimental, physiological, and pathological facts in favour of his opinion. He remarks that no doubt the mental symptoms become intensified and modified by the presence of the abscesses.

W. B. Hadden, M.D.

6. *Wrench on the Effects of a Fixed Idea.*—Mr. E. M. Wrench of Baslow describes this case in the *Lancet*, January 1880, p. 71. A gentleman, away from home, suddenly, while dressing, found his mouth and nose full of blood, and, at the same time, became conscious that his lower false teeth, which he seldom removed at night, were missing. He fancied that he felt them in the pharynx, and sent anxiously for surgical aid. Examination failed to detect any foreign body; still the patient persisted in saying he had swallowed them, and complained of intense pain if the region near the hyoid bone was touched with a probang, asserting that the teeth were there. Finding that the patient could swallow fluids, Mr. Wrench instituted a search for the teeth, and, fortunately, they were found on the top of a chest of drawers. All symptoms immediately vanished, and the patient dressed and ate an excellent lunch.

Richard Neale, M.D.

7. *Tuke on Intemperance in Study.*—In this paper (*Journal of Mental Science*, Jan. 1880), Dr. Hack Tuke draws special attention to the ill effects which frequently follow excessive mental strain in young persons of both sexes. He points out that the time tables of educational institutions give no correct idea of the number of hours' work required by the pupils, as a large quantity of work has always to be done during the time which is apparently set apart for recreation and healthful exercise. The system presses most hardly, of course, upon those who work most conscientiously; and the custom of requiring the same tasks of all pupils alike, without reference to their varying capacities for acquiring knowledge, is most harmful. Dr. Andrew Clark reports that, of the young men passing the Indian Civil Service Examination, and afterwards sent to him for health-certificates, ten per cent., during the last three years, have had temporary albuminuria. Dr. Tuke discusses at some length the present system of medical education; he expresses the conviction that its effect upon the mind is injurious, and thus supports the views of others who hold that it fails to produce the best men, and is altogether unreasonable.

C. S. W. Cobbold, M.D.

8. *Shaw on Tendon-Reflex in the Insane.*—Dr. J. C. Shaw devotes a short article to this subject in the *American Archives of Medicine*, August 1879. He has examined 130 cases. In ten of very decided general paralysis, the tendon reflex was entirely absent; in a fourth it was exceedingly slight. In all these there was decided ataxia. Tendon-reflex is always present in the early stages. In one case in which there were very decided difficulty of walking and slowness of speech, the tendon-reflex was present. In fifteen cases of various forms of mental disorders, it was absent. Some were cases of dementia, others of senile insanity. In twenty-nine others of all sorts it was slight, and in seventy-six it was normal. Westphal's opinion is referred to, that, whenever tendon-reflex is absent, the diagnosis of degeneration of the posterior fibres of the spinal

cord can be made, and a case is recorded in support of it. A male, aged 27, was admitted with excitement and delusions of wealth and greatness. He was feeble and ataxic in speech and gait. A meningitis of the cord was found with cortical sclerosis, and the latter was more pronounced in the posterior fissure, columns, and roots. Dr. Shaw believes that, in fifteen cases of dementia he has seen, in which the tendon-reflex was absent, there was a cortical sclerosis with chronic spinal meningitis; and the cord of a case of chronic mania is figured in which such a condition is represented.

J. F. GOODHART, M.D.

DERMATOLOGY.

RECENT PAPERS.

1. RENAUT, J.—On Prepustulation and Pustulation in Variola. (*Annales de Dermatologie et de Syphiligraphie*, 2me Série, vol. ii, No. 1.)

2. AUBERT, P.—On the Diagnosis of Favus. (*Ibid.*)

3. SPILLMANN, PAUL.—Contribution to the History of Acute Pemphigus. (*Ibid.*)

4. LOEWENBERG, M.—On the Rôle of Micro-organisms in Auricular Furuncles, and on Furunculosis in general. (*Courrier Médical*, Oct. 9, 1880)

5. TRASTOUR, E.—On the Contagion of Furunculosis. (*Courrier Médical*, Nov. 27, 1880.)

6. UNNA, P. G.—On the Treatment of Eczema by Muslin imbued with Ointment. (*Berlin. Klin. Woch.*, No. 35. 1880.)

7. GAUCHER, ERNEST.—On the Pathological Anatomy of Eczema. (*Ann. de Derm. et de Syphilig.*, 2me Série, vol. ii, No. 2.)

8. CHANDELUX and REBATEL.—Histological Examination in a Case of Lupus of the Face. (*Ibid.*)

9. LELOIR, HENRI.—On the Formation of Pustules and Vesicles in the Skin and Mucous Membranes. (*Arch. de Phys.*, 1880, p. 307.)

10. KAUFMANN, C.—Urticaria after Tinctura Pimpinellæ. (*Berlin. Klin. Woch.*, No. 8, 1881.)

11. GREENOUGH, F. B.—On Herpes Progenitalis. (*Arch. of Derm.*, No. 1, 1881.)

12. GRAHAM, J. E.—A Case of Scleroderma. (*Ibid.*)

13. DUHRING, LOUIS A.—Pityriasis Maculata et Circinata. (*Amer. Jour. of the Med. Sci.*, Oct. 1880.)

14. CLARK, ALONZO.—Date of Small-pox Contagion. (*New York Med. Record*, May 1, 1880.)

15. SMITH, WALTER G.—Two Cases of Fragilitas Crinium. (*Arch. of Derm.*, No. 2, 1881.)

16. HEITZMANN, C.—Experiments on Epilation. (*Ibid.*)

17. BULKLEY, L. DUNCAN.—Case of Lichen Planus in which the Eruption first appeared on the Glans Penis. (*Ibid.*)

18. HEPPEL, C.—On a New Abortive Treatment of Erysipelas. (*Ibid.*)

19. WÖLFLER. A Case of Onychogryphosis following Injury to the Forearm. (*Wien. Med. Woch.*, No. 2, 1881, p. 43.)

20. RIEGEL.—On Impetigo Contagiosa. (*Berlin. Klin. Woch.*, March 28, 1881, p. 79.)

21. LAUDON.—A Peculiar Disease of the Skin. (*Berlin. Klin. Woch.*, Jan. 12, 1880, p. 23.)

22. VOSS.—On the Treatment of Psoriasis by Baths of Bichloride of Mercury. (*St. Petersb. Med. Woch.*, 1880, No. 44.)

23. UNNA.—On the Cause of the Black Points in Comedones. (*Virchow's Arch.*, Vol. 82, Heft 1, 1880.)

24. SMITH, WALTER G.—On Herpes (Hydroa) Gestationis. (*Dub. Med. Jour.*, Jan. 1881.)

25. FORREST, ROBERT W.—Case of Cancer of the Mamma in the Male, preceded by so-called Eczema of the Mammary Areola. (*Glas. Med. Jour.*, Dec. 1880.)

26. DENSLOW.—On the Etiology and Treatment of Acne. (*New York Med. Jour.*, Feb. 1881.)

27. RIGAL and CORNIL.—A Case of Acute Purpura Hæmorrhagica. (*Séances de la Société Médicale des Hôpitaux de Paris*, Feb. 28 and March 28, 1879.)

28. NICHOLLS, H. A. ALFORD.—Fourth Report of the Superintendent of the Yaws Hospitals.

29. BULKLEY.—A New Method of Depilation. (*New York Med. Rec.*, July 1881.)

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1. *Renaut on Pustulation and Prepustulation in Variola.*—Professor Renaut (*Ann. de Derm. et de Syphil.* 2me série, vol. ii, No. 1) thus summarises the results of his researches into the anatomical changes which characterise the formation of pustules in variola. 1. There is the stage of papulation, characterised by congestive tumefaction of the skin—slight serous œdema of the cutis 2. The stage of prepustulation is characterised by swelling and opacity of the deep layers of the rete mucosum, the development of a parasitic spheroid, the transition-changes preceding the formation of the vesicle in the superficial and lateral strata of the rete, and the formation of a reticulum. 3. The stage of vesiculation is characterised by the entrance of blood-plasma, filtered of its white and red corpuscles, into the reticulum which has been already formed. 4. The stage of pustulation is characterised by destruction of the deepest layer of the cells of the rete, congestive and inflammatory infiltration of the cutis, the entrance of plasma charged with white blood-corpuscles into the reticulum, and the purulent transformation of these cells. 5. The stage of cicatrisation is characterised by growth of the cutis where it has been denuded, and the formation of a new tissue to replace that which has been destroyed, and of stratified layers of the epidermis which remain always flat, that is to say, not exactly reproducing the papillary body (depressed cicatrix.)

2. *Aubert on the Diagnosis of Favus.*—Aubert (*Ann. de Derm. et de Syphil.*, 2me série, vol. ii, No. 1) has found that, in cases in which the diagnosis of favus is difficult, a sure diagnostic point may be found in an effect of the breaking up of the hair by the parasite. The hair-shaft becomes infiltrated with air, and when looked at by transmitted light under a low power is opaque and dark, but when looked at under reflected light, it shines and shows a brilliant striation.

3. *Spillmann on the History of Acute Pemphigus.*—The author (*Ann. de Derm. et de Syphil.*, 2me série, vol. ii, No. 1) relates a fatal case of acute pemphigus, occurring in a previously healthy woman, aged 36, in which, after severe rigors, the eruption began to show itself in twenty-four hours. On the fourth day there was hæmatemesis. The patient died at the end of the second week of her illness. In the fluid of the bullæ during life, and in the blood after death, a great number of moving rods were found, 'resembling those found in puerperal fever, but shorter'.

4. *Loewenberg on Furunculosis.*—The author (*Ann. de Derm. et de Syphil.*, 2me série, vol. ii, No. 1) having found in boils occurring in the auditory canal the micro-organism found by Pasteur in boils on other parts of the body, recommends treatment by laying open the boil, and applying lotions of thymic or boracic acid. In general furunculosis, he recommends applications of the same lotions to the whole body.

5. *Trastour on the Contagion of Furunculosis.*—M. Trastour relates (*Ann. de Derm. et de Syphil.*,

2me série, vol. ii, No. 1) a case in which four persons, who attended to a patient suffering from a boil, became themselves affected with boils. A fifth, who assisted in the nursing, but who was careful not to touch the wound or the dressings, escaped.

6. *Unna on the Treatment of Eczema by Muslin imbued with Ointment.*—Unna (*Berl. Klin. Woch.*, No. 35, 1880) recommends a new method of applying ointments. Unstarched muslin is soaked in the melted ointment, by which it becomes saturated. When dry, it is cut into pieces, as required, and when applied, it is kept in position by a bandage.

7. *Gaucher on the Pathological Anatomy of Eczema.*—A man, aged 55 (*Ann. de Derm. et de Syphil.*, 2me série, vol. ii, No. 2), became affected with disseminated eczema of the face and limbs. He applied a carbolic acid lotion, which aggravated the disease into an acute and generalised eczema. When he entered the St. Louis Hospital, not only his whole body was affected, but the disease had invaded the lips and mucous membrane of the tongue. The skin was red, swollen, hot, painful, and covered with yellow crusts. The patient died a month after his admission into the hospital, and two months after the first outbreak of the disease. The changes found, on microscopical examination, were, in the author's words, as follows: *a*, congestion of the papillary blood-vessels, and embryonic infiltration of the cutis, and of the papillæ; *b*, vesicular transformation of the cells of the rete Malpighii, and total destruction of the centre of some interpapillary columns; *c*, partial loosening of the epidermis from the corium; *d*, ulcerations.

8. *Chandelux and Rebatel on the Histological Examination in a case of Lupus of the Face.*—The authors (*Ann. de Derm. et de Syphil.*, 2me série, vol. ii, No. 2) describe the now well-known characters of lupus-tissue, and, on the strength of the anatomical changes, adhere to the opinions of Friedländer, Köster, and others, to the effect that lupus is tuberculosis of the cutis.

9. *Leloir on the Formation of Pustules and Vesicles in the Skin and Mucous Membranes.*—Leloir (*Arch. de Physiol.*, 1880, p. 307) finds that the first changes which lead to the formation of vesicles and pustules in the skin, take place in the rete mucosum and in the layer of granular cells. Changes in the individual cells lead to dilatation and destruction of the distended cell-walls at the points of contact; and small cavities are thus formed in the epidermis, which finally become filled with white blood-corpuscles (pus) from the blood-vessels of the papillary layer. The irritating agents that lead to the destruction of the epidermic cells are to be found in the blood and lymph of this layer. These penetrate the epidermis from below, and act in a manner analogous to that which follows the application of irritating substances, such as croton-oil, to the surface of the skin.

10. *Greenough on Herpes Progenitalis.*—Greenough (*Arch. of Derm.*, No. 1) finds that the parts of the penis most likely to be affected are in the following order: the sulcus, the reflected mucous membrane of the prepuce, the glans, the margin or edge of the prepuce, and the skin of the shaft. He regards the disease as being *sui generis*, and believes that in the early stages it is impossible to distinguish it from chancroid. For treatment, he recommends dilute liquor plumbi subacetatis applied on a piece of soft linen or absorbent cotton. If the abrasures be indolent, he uses an ointment made with vaseline or cosmoline, balsam of Peru, and iodoform, in the proportion of a drachm to the ounce. [The reporter recommends, with confidence, the use of dry boracic lint, for the first suggestion of which he is indebted to a London surgeon. Patients liable to this troublesome affection, to whom it is recommended, will, as he can testify from experience, have reason to be grateful for the advice.—*Rep.*]

12. *Graham on a case of Scleroderma.*—The patient (*Arch. of Derm.*, No. 1, 1881), a girl, aged 18, suffered from scleroderma for about a year. A considerable extent of surface was involved. The principal remedies used were iodide of potassium, strychnine, phosphates, and arsenic, the most rapid improvement taking place whilst she was taking the iodide.

13. *Duhring on Pityriasis Maculata et Circinata.*—Dr. Duhring, in a paper (*Amer. Jour. of the Med. Sciences*, Oct. 1880—see also *Arch. of Derm.*, No. 1, 1881) read before the American Dermatological Association, remarked that although Bazin described this disorder under the title of '*pityriasis rubra aigüe*', with two varieties, '*maculata et circinata*', it had yet apparently escaped the observation of English, American, and German observers. The author gives in his paper the clinical histories of six cases. The course of the disease is generally as follows. 'The patient, while nearly or quite in usual health, discovers by accident, or it is revealed by slight itching, circumscribed erythematous patches upon the body or extremities. These patches, which are not scaly nor infiltrated, gradually extend over the body, making the surface a dull-red or violet colour, the hands and feet generally escaping; subsequently there is always more or less furfuraceous desquamation. The itching usually runs its course in from four to twelve weeks, with more or less pigmentation. The itching in some cases is a prominent symptom.' The disorder has been described by Hardy as 'pityriasis circinée'.

14. *Clark on the Date of Small-pox Contagion.*—The author (*New York Med. Record*, May 1, 1880) states that his experience goes to show that, up to the time of the umbilication of the variolous pustule, there are no emanations from the body that will convey small-pox to another person.

15. *Smith on Two Cases of Fragilitas Crinium.*—Dr. Walter Smith (*Arch. of Derm.*, No. 2, 1881) observed in a young medical man an affection of the hairs of the moustache, with minute pustules or abscesses on the right side of the lip. The hairs broke off short. Most of the larger hairs appeared as if cut off at the ends, and some were tipped with a black nob. Another young medical man, who used the hair-brush of this patient to brush his moustache, had the hairs of the moustache similarly affected. In the course of a week the affection had spread considerably, and the right half of the moustache appeared as if it had been clipped. In fact, the two cases were evidently samples of the same disease of the hairs. The second case, which was kept under observation, got well whilst an application of vaseline and oil was being used. Dr. Smith could not detect evidence of trichophytosis, but remarks that in the hairs of one of the patients two skilled microscopists believed that they detected the presence of a fungus. [A disease of the hair conveyed from one patient to another by a brush must have been contagious, and the contagious substance could surely have only been a fungus.—*Rep.*]

16. *Heitzmann on Epilation.*—Heitzmann (*Arch. of Derm.*, No. 2, 1881) made experiments on the hairs of his arm, in order to ascertain whether it is

possible to discover a practicable method of destroying superfluous hairs. He injected into the hair-follicle, with the intention of destroying the papilla, tincture of iodine, carbonate of potash, and solutions of caustic potash in six, five, and four parts of water. He found that caustic potash diluted with four parts of water is, on being introduced to the bottom of the hair-follicle, capable of destroying the papilla of the hair under the symptoms of suppuration. A very fine instrument is used for the purpose. [The symptoms of irritation and inflammation which are described as following the operation, will hardly encourage practitioners to urge on their patients this means of getting rid of disfiguring hairs. Dr. Heitzmann's paper was read before the American Dermatological Association, and, in the discussion which followed (*Ibid.* p. 177), several of the members remarked that they had obtained satisfactory results from Dr. Hardaway's method of destroying the hair-papilla by electrolysis.—*Rep.*]

17. *Bulkeley on a Case of Lichen Planus, in which the Eruption began on the Glans Penis.*—When the patient (*Arch. of Derm.*, No. 2, 1881) was first seen, the glans penis was the seat of several patches of pinkish purplish colour, evidently composed of smaller spots aggregated together, with also a few pin-head spots around. They were all similar in appearance, flat on the summit, very slightly elevated and without a particle of induration; the surface was smooth, without desquamation; there was no balanitis. The diagnosis was cleared up by the subsequent development of the eruption of lichen planus on the body. The eruption on the penis appeared three months before its development elsewhere; it disappeared from the penis about three months before it vanished from the other parts.

18. *Heppel on a New Abortive Treatment of Erysipelas.*—Heppel states (*Arch. of Derm.*, No. 2, 1881) that in seven cases the spread of erysipelas was arrested by brushing the boundary line and the parts extending a finger's width on each side of it with a ten per cent. alcoholic solution of carbolic acid, until the integument thus painted showed a decided discoloration.

19. *Wölfler on a Case of Onychogryphosis following Injury to the Forearm.*—Wölfler (*Wien. Med. Wochensch.*, No. 2, 1881) exhibited to the Medical Society of Vienna a man, who seven years previously had suffered from compound fracture of the bones of the right forearm. On account of secondary hæmorrhage, the brachial artery, and later the axillary, required ligature. It was nine months before complete recovery took place, and during this time the arm had been kept almost motionless. Three years afterwards, the nails began to assume an abnormal appearance; and when the case was shown to the Society they were thick, furrowed, and twisted like a ram's horn. Dr. Wölfler pointed out that the change did not consist in a mere increase in the quantity of nail-substance, but that the quality was altered. Professor Billroth remarked that it was not clear in what the evident disturbance of nutrition consisted. The sensibility was natural in all parts of the hand, and the radial pulse was perfectly good.

21. *Laudon on a Peculiar Disease of the Skin.*—Dr. Laudon (*Berlin Klin. Wochensch.*, Jan. 12, 1880, p. 23) relates two cases in which, after chill, localised swellings appeared from time to time on different parts of the body for periods of about ten weeks. The swollen parts were deep red in colour, and the condition rapidly disappeared. In one of the cases, the first attack was accompanied with acute pharyngitis of the left side, which disappeared in one night after an emetic had been taken. The author believes the cause of the disease to be spinal irritation produced by cold.

22. *Voss on the Treatment of Psoriasis by Baths of Bichloride of Mercury.*—Voss had found mercurial baths successful in removing the disease in five cases of inveterate psoriasis. He prescribes a daily bath in which the patient remains 30 to 40 minutes. In one case a cure was effected by 46, in another by 32, in another by 40, in another by 48 baths. In the fifth case the patient was under treatment when the author wrote.

23. *Unna on the Cause of the Black Points in Comedones.*—Unna (Virchow's *Arch.*, Band lxxxii, Heft 1) believes that the generally accepted idea that the black point of a comedo is due to dirt is a mistake. He attributes it to a pigmentary change in the cells of the horny layer of the epidermis. He has found the most successful treatment to be the application of dilute acids. All applications containing alkalies should be avoided.

24. *Smith on Herpes (Hydroa) Gestationis.*—Dr. Walter Smith (*Dub. Med. Jour.*, Jan. 1881) relates another case of this rare, but now sufficiently described, affection. The patient had two attacks during different pregnancies. The first attack occurred when she was six months pregnant of her third child; the second when three months pregnant of her seventh child.

25. *Forrest on a Case of Cancer of the Mamma in the Male, preceded by so-called Eczema of the Mammary Gland.*—Dr. Forrest (*Glas. Med. Jour.*, Dec. 1880) reports a case in which, in a man aged 72, an affection, 'a leakage', on one side of the nipple preceded the development of cancer of the breast. This is the first case of the kind recorded in the male subject.

27. *Rigal and Cornil on a Case of Acute Purpura Hæmorrhagica.*—MM. Rigal and Cornil read before the Société Médicale des Hôpitaux de Paris (meetings of Feb. 28 and March 28, 1879) the clinical history and results of a minute histological examination in a fatal case of purpura hæmorrhagica complicating heart-disease. Their conclusions are these. 1. In serious cases, purpura hæmorrhagica is a complex symptomatic condition, is fundamentally constituted by cutaneous and mucous hæmorrhages, and by a progressive debility resulting from an exhaustion of the nervous system, which is not always in proportion to the amount of hæmorrhage. 2. Whatever the conditions which have given rise to purpura hæmorrhagica may be, it is impossible to understand the production of the hæmorrhages, without supposing that there is trouble in the innervation of the vascular wall; this trouble may be either a stimulation of the sympathetic filaments, or a diminution in the action of the vaso-motor centres. The changes in the blood and the lesions of the vascular walls appear to be variable and inconstant; although their great influence cannot be denied, they seem to be insufficient to produce purpura hæmorrhagica apart from nervous disturbance. 3. In the course of chronic maladies, particularly in the course of an affection of the heart, an acute purpura hæmorrhagica running a rapid course may supervene, before the establishment of an appreciable cachectic condition. The vascular lesion at the points of ecchymosis may consist of nothing more than simple dilatation of the arterioles of the cutis. 4. In future observations, the differential diagnosis should be made with rigorous accuracy; and cases of hæmorrhagic variola, scurvy, and

hæmophilia, should be carefully separated from true purpura hæmorrhagica.

28. *Nicholls'on Yaws.*--In an appendix to the *Fourth Report of the Superintendent of Yaws Hospitals* (p. 23) the symptoms presented in a few cases of the disease are described. 1. In a woman 40 years of age, there were large reniform encrusted tubercles at the right angle of the mouth, with papules on both arms, and squamæ on both hands. There were cicatrices about the limbs, and the disease had lasted two years. Twenty-two weeks later, the same patient had small tubercles on the mucous membrane of the lip, and a squamous eruption over the body, and the old ulcer on the leg had broken out again. 2. A girl, aged 3 years, had encrusted tubercles on the face, abdomen, buttocks, pudenda, and perinæum. About a year afterwards, in a second attack, there were encrusted tubercles on the face, scalp, trunk, arms, and the perinæum. There were also many maculæ about the body and limbs. 3. A boy, aged 8 years, had encrusted tubercles on the chin and left knee, and squamæ on the body and limbs. 4. A boy, aged 9 years, had a large partially encrusted tubercular mass on the inner side of the left foot; he had also onychia of the left thumb, and maculæ on the body and limbs. After being free from disease for eight months, he was again seen with small ulcers round the left internal malleolus and encrusted tubercle above the left heel, and small encrusted tubercles on the face. [Science is indebted to Dr. Nicholls for the details of these cases. What is most urgently required in reference to the affection known as yaws, is a full clinical history of a large number of cases, and a few coloured drawings showing the appearances considered characteristic. —*Rep.*] G. Thin, M.D.

29. *Bulkley on a New Method of Depilation.*—A new method of depilation, recommended by Dr. L. Duncan Bulkley, for favus, is by using the following preparation (*New York Med. Record*, July 1881): ℞ Ceræ flavæ, ʒ iij; laccæ in tabulis, ʒ iv; resinæ, ʒ vi; picis Burgundicæ, ʒ x; gummi dammar, ʒ jss. This is made into sticks of different sizes. The end is heated until soft, and then applied to the diseased scalp, the hair having been cut short. As soon as the wax is cool it is carefully withdrawn, bringing away the diseased hairs. The head is then washed with a lotion of bichloride of mercury, gr. iv. to ʒj. Dr. Bulkley considers depilation quite essential in favus, a view not held by all.

OTOLOGY.

RECENT PAPERS.

1. Spencer, H. N.—A Case of Aneurism of the Middle Meningeal Artery from Injury. (*Trans. of the Amer. Otol Soc.*, 1880.)

2. Green, J. Orne. — Case of Osteosclerosis of the Mastoid Bone. (*Ibid.*)

3 Kipp, C. J.—On the Ear-Affections of Inherited Syphilis. (*Ibid.*)

4. Kipp, C. J.—On Branchial Fistulæ at the External Ear. (*Ibid.*)

5 Knapp, H.—Some Remarks and Observations on Bone Conduction. (*Ibid.*)

6. Weber-Liel.—On Auditory Vertigo. (*Monats. für Ohrenheilk.*, Nov. 1880.)

7. Voltolini, R.—On the Pathologico-Anatomical Examination of the Ear, especially of the Labyrinth. (*Ibid.*)

8. Voltolini, R.—On Aural Polypi and their Treatment. (*Ibid.*, Feb. 1881.)

9. Michael, J.—Employment of Nitrite of Amyl in Diseases of the Ear. (*Annal. des Mal. de l'Oreille, etc.* March 1881.)

10. Brown, F. H.—Impacted Foreign Bodies in the External Auditory Meatus. (*Amer. Jour. of Otology*, vol. iii.)

11. Schwartze. — A Case of Profuse Discharge of Cerebro Spinal Fluid and Symptoms of Cerebral Hyperæmia from the thrusting of a Knitting-Needle into the Ear. (*Archiv. für Ohrenheilk.*, Band xvii.)

1. *Spencer on Aneurism of the Middle Meningeal Artery from Injury.*—Dr. Spencer (*Trans. of the Amer. Otolog. Soc.*, 1880) relates a case of supposed aneurism of the middle meningeal artery, the result of a gun-shot wound. The ball 'entered on the left side of the head, at a point three-quarters of an inch below, and seven-eighths of an inch in front, measured from a central point, on the floor of the meatus, at its external orifice, and emerged on the opposite side of the head, just in front of the tragus, central with the external auditory canal'. When seen about seventeen months after the injury, there was considerable deafness of both ears. As this, however, did not come on till some weeks after the accident, and improved under treatment, the author ascribes it to chronic catarrh of the middle ear, the result of exposure to cold after the accident. Three or four days after the accident, a noise synchronous with the pulse, at first feeble, but afterwards increasing in intensity, made its appearance. It could be plainly heard by the surgeon through the diagnostic tube inserted into the left meatus. The author considers that the ball must have passed against the posterior surface of the middle meningeal artery, a little below its point of entrance, into the foramen spinosum, on a level with the union of the atlas and axis, only obliquely, and must have passed through the tissues of the posterior wall of the pharynx.

2. *Green on Osteosclerosis of the Mastoid Bone.*—In a paper published in the *Trans. of the Amer. Otolog. Soc.* for 1880, Dr. O. Green adds three cases to those already recorded by him of hyperostosis of the mastoid. In Cases I and II reported in this paper, there was distinct prominence of the temporal bone; on both sides in the first case, on one side only in the latter. In Cases I and III, the mastoid bone was perforated without reaching the cells, but with decided relief from the severe pain for which the operation was undertaken. In Case II the operation was not undertaken, on account of the patient's pregnancy. The author's later experience on this subject is confirmatory of the favourable effect of the operation, although he does not favour surgical interference until other measures have failed. His views agree on the whole with those of Hartmann (see London Medical Record, May 15, 1880). In the discussion which followed the reading of Dr. Green's paper, Dr. Agnew, who had twice trephined where he found this eburnation of the mastoid cells, suggested that the ether administered during the operation might have something to do with the cure of the patient, and mentioned a case of severe neuralgia of the mastoid greatly improved by large doses of whiskey.

3. *Kipp on the Ear-Affections of Inherited Syphilis.*—This paper (*Ibid.*) consists of a record of six cases of affection of the internal ears or acoustic nerves in females from six to twenty-three years of age. They present nothing peculiar, except that in several bone-conduction was noted as satisfactory or

good, which the author attributes to the patients mistaking vibration for sound. Treatment was of little benefit except in one case, although several of the patients lived in comfortable houses, and had a sufficiency of wholesome food. Mercury was administered only in one case; iodide of potassium in all. In all the cases except one, keratitis had existed in both eyes before the ears were affected. In the discussion on this paper, Dr. Knapp considered that for treatment mercury was infinitely better than iodide of potassium. Dr. Agnew advised the heroic use of mercury, so as to get its full effect in forty-eight hours or three days by inunction. Dr. Sexton adhered to his previously published opinion that in cases of this description the chief lesion is in the middle ear.

4. *Kipp on Branchial Fistulæ at the External Ear.*—Dr. Kipp (*Ibid.*) has met with six individuals in whom this anomaly, or a depression in the skin corresponding to the usual seat of the orifice of the fistulæ, was present. In five of these, a fistulous canal, into which a fine probe could be passed in a downward, forward, and inward direction, for a distance of from 3 to 10 millimètres, was present on the helix, about a centimètre above the upper end of the tragus. In three cases it was bilateral, in two unilateral. In none of the cases was it possible to demonstrate a connection between the fistula and the external auditory canal, or tympanic cavity. Three of the cases are surgically of interest, on account of cysts being connected with the fistulæ. The author's experience in the treatment of these cases shows that incision and cauterisation of the cysts are not at all reliable, and should not be resorted to if extirpation is at all practicable.

5. *Knapp on Bone-Conduction.*—In some interesting remarks on this subject (*Ibid.*), in which the author urges some physiological analogies between the eye and the ear, he gives his opinion that direct bone-conduction does exist, but produces only quantitative perception of sound, not useful hearing. For the qualitative perception of sound, *i.e.*, the discrimination of articulate speech and musical (in particular clang tint, melody and harmony), the author considers that the integrity of the sound receiving and conducting apparatus of the middle ear, especially the mechanism of the stapes, is indispensable. In support of this, he mentions three observations. 1. He has never met with a person who could hear his (Dr. Knapp's) watch (hearing distance = 24 inches) from the mastoid process, temple, or other parts, if he could not hear it on application to the ear. 2. The author has had patients with acute and chronic diseases of the middle ear, who could hear the watch only on application to the auricle or not at all, who, after the drumhead had been punctured and the ear treated by Politzer's method, could hear the watch distinctly, not only on application to the auricle, but also from the mastoid, temple, etc. 3. The author has never met with a person who was benefited more by the audiphone than by a trumpet. In the discussion which followed, Drs. Andrews and Pomeroy explained the phenomena of intermittent bone-conduction (see above, observation 2) by pressure exerted on the fenestra ovalis, interrupting the functions of the labyrinth. Dr. Blake agreed with Dr. Knapp as to the importance of the subject, and the necessity for a thorough investigation of the same.

8. *Voltolini on Aural Polypi and their Treatment.*—In the *Monats. für Ohrenh.* for Feb. 1881, Prof. Voltolini makes some remarks on this subject. With regard to the etiology, he thinks that any irritation whatsoever in the meatus may produce a growth of polypi. Any otorrhœa can also give rise to these growths, but a certain predisposition appears to be necessary for their occurrence. In regard to prognosis, the author lays great stress on the sensitiveness of the growths. When benign in character, they are not sensitive, and excite very little pain when pulled upon; when, on the other hand, they are very painful on being touched, the prognosis is bad, and a deeper affection (*e.g.*, of the bone) may be diagnosed. He relates two cases in which the polypi were excessively tender to the touch; both cases terminated fatally, the one from violent hæmorrhage from the ear, the other from meningitis, a *post mortem* examination showing disease of bone in the tympanum and abscess in the cerebellum. Mentioning the use of alcohol, as recommended by Politzer for causing shrinking of polypi (*vide* LONDON MEDICAL RECORD, Jan. 1881), the author considers that if employed for months its use might become dangerous, owing to the perpetual abstraction of water from the tissues. In the treatment, the author removes the growth by means of a fine snare of steel wire passed round it. If it be too resistent to be cut off with the cold snare, the wire is heated with the author's small galvano-caustic battery. For touching the root, he always employs a very fine galvano-cautery point, with the same battery. [This battery may be obtained in London of Messrs. Krohne and Sesemann. Its chief advantages were mentioned by the reporter in a note in the *Specialist* for October 1880.—*Rep.*]

9. *Michael on the Employment of Nitrite of Amyl in Diseases of the Ear.*—Dr. Michael of Hamburg (*Ann. des Mal. de l'Oreille, du Larynx, etc.*, March 1881) has tried inhalation of nitrite of amyl in twenty-seven cases of subjective tinnitus. In nineteen, there was a more or less marked improvement. In three cases, the noises disappeared entirely. The majority were cases of otitis media hypertrophica. Of three cases of affections of the labyrinth, two were relieved. From one to five drops of the nitrite were inhaled at each sitting, the inhalation being stopped as soon as the patient complained of vertigo. In all cases in which improvement resulted, the tinnitus became more marked during the inhalation. A second inhalation had usually a more lasting effect than the first, the benefit obtained from which was of very variable duration.

E. CRESSWELL BABER, M.B.

10. *Brown on Impacted Foreign Bodies in the External Auditory Meatus.*—Dr. Francis H. Brown (*American Jour. of Otology*, vol. iii, 1881, p. 29) says that, judging from the remarks of some authors, the meatus auditorius is looked upon as a *terra incognita*, much as the colon or the pleural cavity would be, and its investigation to be entered on as we should that of any of the inner organs of the body. Every practitioner should, on the contrary, recognise the fact that the entire passage of the outer ear is within his sight, and that the treatment of its diseases should be governed by the same rules which would dictate his care of any other portion of the body's surface. After speaking of the various instruments in common use for the removal of foreign bodies from the external auditory meatus, Dr. Brown says the point he wishes to make is, that tightly impacted bodies in the ear must be removed; that the practice of allowing them to rest, even in cases where no apparent and immediate irritation and inflammatory action are present, does not offer assurance that subsequent trouble will not arise; and, in fact, at some

time or other, with the accumulation of cerumen in the ear, with the access of cold, or by some other means, the meatus is very likely to take on inflammatory action, in which case the integrity of the middle ear may be jeopardised. If the body be firmly impacted in the ear from the first, its very presence and pressure induce œdema of the meatus; and the longer it remains, the more unsatisfactory will be the attempt to remove it. A sort of burr is often formed, both before and behind the body, caused by the œdema to which the stoppage of circulation gives rise, and this may obscure the body from view. As an example of what may be expected when such foreign bodies are allowed to remain, Mr. Hutchinson speaks of a child with a locust-bean in its ear, which could not be removed. The bean soon swelled, and filled the cavity. A week later the child was feverish, and had pains in the head; then paralysis of the portio dura came on. Dr. Brown considers the Tiemann bullet-forceps the best instrument for extracting, and he gives a note of a case in which an impacted kernel of corn was removed by this instrument, the patient being placed under ether.

11. *Schwartze on Injury of the Ear by a Knitting Needle.*—H. Schwartze records a case (*Archiv für Ohren.*, Band xvii) in which the accidental thrusting of a knitting needle into the ear of a child was followed by profuse discharge of cerebro-spinal fluid and severe symptoms of cerebral irritation from hyperæmia. He thinks it probable that the needle passed through the fenestra ovalis into the vestibule, and, owing to the free communication shown to exist by the injections of Schwalbe between the labyrinth and the arachnoid cavity, that the fluid discharged proceeded from the labyrinth. The hyperæmia of the brain may be attributed to the distention of the blood-vessels, to fill the space left by the outflow of cerebro-spinal fluid. Frederic S. Eve.

TOXICOLOGY AND MEDICAL CHEMISTRY.

RECENT PAPERS.

1. Rockey, A. E.—On Rossbach's Delicate Tests for Poisons. (*Therap. Gaz.*, March 1881.)

2. Reinl, C.—A Case of Atropia Poisoning. (*Prag. Med. Woch.*, 1880, No. 20.)

3. Ford.—On the Antagonism of Atropia to Morphia. (*St. Louis Med. Jour.*, June 1881.)

4. Lead-Poisoning from the Use of a Face-Powder. (*Physician and Surgeon*, April 1881.)

5. Hodgson, A. S.—Toxic Properties of Morphia. (*Philad. Med. and Surg. Rep.*, May 28.)

6. Macdonald.—Poisoning by Hydrochloric Acid: Recovery. (*Edin. Med. Jour.*, June 1881.)

7. Giscaro.—Sulphuretted Hydrogen in the Urine. (*Revue Med. de Toulouse.*)

8. Friedberg, H.—Acute Poisoning by Carbolic Acid. (Virchow's *Archiv*, Band lxxxiii.)

9. Ribbert.—On the Formation of Hyaline Tube Casts. (*Centralb für die Med. Wissen.*, No. 17, 1881.)

10. Zander.—The Seeds of Xanthium Strumarium. (*Inaug. Diss.*, Dorpat, 1880.)

11. Jaksch.—Peptonuria in Acute Rheumatism. (*Wiener Med. Wochenschr.*, No. 7, 1881.)

1. *Rockey on Rossbach's Delicate Tests for Poisons.*—An abstract of Rossbach's paper will be found in the London Medical Record for April, p. 168. Dr. Rockey (*Therap. Gaz.*, March 1881) was delighted with the idea, and the prospect of being able to detect strychnia in a solution of one part in 15,000 induced him to try it at once. He was disappointed to find that the infusoria lived and thrived in a solution of more than ten times this strength. To produce the change in their characteristic movements, followed by swelling of the body and death, required solutions of the strength of one grain to the ounce, and then death took place but slowly. Carbolic acid produced more decided results, and the bichromate of potash test detected less strychnia. Observations with atropine, eserine, and curare were equally unsatisfactory. Dr. Rockey believes that in America the infusoria have considerably more stamina than they have on the other side of the water.

2. *Reinl on a Case of Poisoning by Atropia.*—The patient, a small, weak anæmic child, aged 6, took by mistake, between eight and nine in the morning, a teaspoonful of a solution of atropia, 0.05 to 10.0, or about 35 milligrammes (a little more than half a grain). His face soon became flushed, his gait staggering, and his voice hoarse. An hour later, antidotes were administered, including tannic acid, iodide of potassium, and injections of infusion of jaborandi. Soon the patient exhibited hallucinations, and became delirious. Seven and a half hours after the dose had been taken, Reinl (*Prag. Med. Wochenschr.*, No. 20, 1880) saw the child, who was restless and unconscious, and still delirious, the pulse being 140 and respirations 30. A hypodermic injection was given of 5 centigrammes of morphia (about three-fourths of a grain), and in ten minutes the pulse fell to 100 and the respirations to 20. The restless movements subsided, and in half an hour the patient slept, the pulse falling quickly to 96, and the respirations to 18. The following morning, after a good night's rest, the child was quite cheerful, though there remained twitchings of the muscles of the face and extremities, which continued three days. [This case affords no proof that morphia is an antidote to atropia. Children are curiously insusceptible to the action of belladonna. Holthouse has recorded the case of a boy, aged 3½ years, who recovered after taking half a grain of atropia; and there have been cases of recovery after taking 0.5, 0.6, 1.0, and 1.5 grains respectively. The injection of an infusion of jaborandi could hardly be expected to do any good. It is true that a hypodermic injection of a one-hundredth part of a grain of atropia will instantly check the perspiration and salivation of jaborandi, but the contrary is not the case. Atropia is a much more powerful alkaloid than pilocarpin; and in a case of poisoning by atropia recently recorded by Purjesz, of Buda-Pest, as much as 6½ grains of hydrochlorate of pilocarpin had to be administered hypodermically, before any antidotal properties were observed. It is interesting to note the fall in pulse and respiration after the injection of the morphia. It would appear that, although morphia is not an antidote to atropia, it will retard the restlessness and delirium caused by a poisonous dose of that alkaloid.—*Rep.*]

3. *Ford on the Antagonism of Atropia to Morphia.*—Dr. Ford (*St. Louis Med. Jour.*, June 1881) records a case of poisoning by morphia treated with atropia. The patient, a lady, had been for some time in the habit of taking morphia, in consequence, partly, of a late affliction, and partly, it was believed, from neurotic trouble arising from uterine disorder.

It was known that on a certain Sunday she took a grain of 'morphine'; on Monday, another grain; on Tuesday, in the morning, a smaller dose, probably half a grain; whilst, in the afternoon of that day, about six o'clock, she took two grains. At 9 P.M. she was seen by Dr. Ford, who found her with a slow pulse, cold extremities and clammy skin, the respirations being ten or twelve to the minute, with perhaps a deep breath or two every now and then. The pupils were not greatly contracted. She was perfectly insensible, and could not be aroused. Dr. Ford at once administered some strong coffee, and, after waiting from ten to fifteen minutes, gave her 'several considerable doses' of ammoniated tincture of valerian. Her symptoms, however, increased in severity, until at last she was unable to swallow. A hypodermic injection was then administered, of sixteen minims of a 1 in 120 solution of atropia. Dr. Ford considered that, as the patient had taken about sixteen times the ordinary dose of morphia, he could not be far wrong in giving her as an antidote about sixteen times the ordinary dose of atropia. At all events the treatment was successful, and in from ten minutes to a quarter of an hour the pulse rose to a hundred, and the respirations to twenty-four in a minute. In twenty minutes she became restless, and showed signs of returning sensibility. From this time her condition gradually improved, and she awoke at two o'clock. The next morning she was well, with the exception of some prostration and a feeling of numbness all over the body. [This is an instructive case, and the patient is to be congratulated on her recovery after taking so large a dose. The drug is spoken of as 'morphine', but it is not stated whether it was the acetate or hydrochlorate of morphia. It would be interesting to know how long the lady had been in the habit of taking morphia, and in what doses, so that we might get some idea of the degree of tolerance likely to have been established. It is curious that Dr. Ford should have allowed from ten to fifteen minutes to elapse after administering the coffee before taking other steps. He does not appear to have done much to rouse the patient. She might have been walked about and flapped with a wet towel, or had the battery applied to her legs. The cold douche, too, is not to be neglected in these cases, and there are many other measures which naturally suggest themselves. The dose of atropia given (one-eighth of a grain) is in accord with the most recent investigations; Bartholow recommending a twentieth of a grain for every grain of morphia taken. For a full discussion of the subject of the antagonism between opium and belladonna, see an article under the head of 'Recent Studies in Therapeutics', *Brit. Med. Jour.*, February 12, 1881.—*Rep.*]

William Murrell, M.D.

4. *Lead-Poisoning from the Use of a Face-Powder.*—The *Physician and Surgeon* for April 1881 contains a report of a case of chronic lead-poisoning, in which the patient was pale and weak, with her hands flexed at the wrists, a blue line on the gums, and unable to feed or dress herself. No cause could be discovered until it was found that for twelve years she had used a face powder called 'flake-white', an analysis of which proved it to be entirely composed of carbonate of lead. Being under Professor Palmer's care in hospital, she was put upon a treatment of iodide of potassium, sulphur baths, and electricity, and in three weeks she could dress and feed herself. After five weeks she was discharged. It could not be shown that any of the lead was eliminated by the kidneys, though the urine was examined for it.

5. *Hudson and others on the Toxic Properties of Morphia.*—Dr. A. S. Hudson, of Stockton, California, thinks that the dose of morphia required to produce a fatal result varies greatly with different individuals (*Philad. Med. and Surg. Reporter*, May 28, 1881). He mentions one case (the wife of Dr. Case, of California, who died of cancer of the breast), that never required more than one-sixteenth of a grain of morphia by the mouth, to relieve the severest pain, and its continued use did not require an increase in the dose. A larger dose produced unfavorable symptoms. On the other hand, he mentions recovery in one case from a dose of seventy-five grains, and in another from two drachms of the drug. In the first instance, belladonna was resorted to, but the latter recovered spontaneously. He does not believe that we have any means of knowing that belladonna, or any other drug, is antagonistic to the toxicological properties of morphia. In the same number of the *Reporter*, Dr. J. A. Kimmel, of Ohio, reports the case of a man who took fourteen grains and recovered, after several hours of vigorous treatment with atropia, electricity, etc.; while Dr. C. M. Nutt, of Indiana, reports a case of alarming narcosis from a hypodermic injection of one-third of a grain (*Louisville Med. News*, June 4, 1881). In the latter case, contraction of the pupils, gastric disturbance, and exhaustion, continued for four days after the dose was administered.

6. *MacDonald on Poisoning by Hydrochloric Acid: Recovery.*—Dr. MacDonald (*Edinburgh Med. Jour.*, June 1881, p. 1093) was called to see a man who had taken an ounce and a half of hydrochloric acid, presumably in one gulp, as there was no corrosion of the mucous membrane of the mouth or fauces. He had taken, by way of antidote, before the doctor's arrival, a teaspoonful and a half of bicarbonate of sodium, and a bottle of soda-water. Dr. MacDonald immediately gave him a cupful of solution of carbonate of sodium, which was rejected with some coffee-ground-like matter. The patient was then surrounded with hot-water bottles, and was directed to have milk alone as a nourishment. Subsequently the temperature rose to 102 deg.; pulse, 100 to 108. The epithelium of the tongue became leathery and ichthyosed in appearance; and this cleared off on the tenth day. There was complaint of of pain opposite the cardiac and pyloric orifices of the stomach, and of general tenderness over the abdomen. Opium was given for sleeplessness, and turpentine stupes were placed over the whole abdomen. A little diarrhœa of irritation set in, the stools smelling of turpentine. The inflammatory danger over, convalescence was uninterrupted save by a little cough, which succumbed to an ordinary mixture. Dr. Mac Donald remarks, in reference to this case, on the evidence which it gives of the low corrosive power of hydrochloric acid; on the absence of mouth-signs to aid the diagnosis, which might happen in a case where no information could be had as to the poison taken; on the diarrhœa of irritation containing absorbed turpentine; and on the apparent general result to the patient of only some gastric catarrh, evidence of œsophageal stricture or gastric ulcer being in the meantime wanting.

7. *Giscaro and Cameron on Sulphuretted Hydrogen in the Urine.*—Dr. Giscaro reports in the *Revue Méd. de Toulouse* the case of a gentleman, aged 42, the subject of frequent attacks of dyspepsia, symptomatic, according to Dr. Giscaro, of a rheumatic

affection. The patient observed that his urine had constantly the odour of rotten eggs, prior to the advent of the gastric symptoms from which from time to time he suffered. A chemical examination of the urine at one of these periods showed that it contained sulphuretted hydrogen. Dr. Giscaro confesses his inability to explain this strange phenomenon. Dr. Cameron, of Dublin, unaware of Dr. Giscaro's communication, has published in the *Lancet* (Nov. 13, 1880, p. 766) a case of a similar kind which was under his observation. The patient was a gentleman of middle age, whose complaints were always of a somewhat indefinite character. His urine contained free sulphuretted hydrogen the moment it was passed. This continued for a period of somewhat over two years. So soon as the sulphuretted hydrogen disappeared, its place was taken by ammonia, which in its turn continued present in the urine for about two years also. Dr. Cameron likewise refers to the case of a young lady from whose skin sulphuretted hydrogen was exhaled. Her urine contained no sulphuretted hydrogen.

8. *Friedberg on a Case of Acute Poisoning by Carbolic Acid.*—Dr. Hermann Friedberg (Virchow's *Archiv*, Band lxxxiii, Heft 1) publishes a case in which 8½ grammes (128 grains) of carbolic acid mixed with glycerine (equal parts) caused the death of a vigorous young man aged twenty-three, in about twelve minutes after having been swallowed.

9. *Ribbert on the Formation of Hyaline Tube Casts.*—Dr. Hugo Ribbert (*Centralbl. für die Med. Wiss.*, No. 17, 1881) is of opinion that hyaline tube-casts are simply due to the coagulation of albumen in the tubules, effected by the acidity of the secretion of the renal epithelium. Egg-albumen, treated with dilute acetic acid and coagulated by heat, appears hyaline under the microscope. Having caused albuminuria in rabbits by temporarily clamping the renal arteries, he injected 20 to 30 grammes of a 2½ per cent. solution of acetic acid into the jugular veins, and shortly afterwards extirpated the kidneys and coagulated the albumen in them by plunging them into boiling water (Possier). In two cases, he succeeded in finding some of the Malpighian capsules filled with hyaline masses, which dissolved in water and became granular on the addition of alcohol. But in other experiments, having extirpated the kidneys from rabbits similarly made albuminuric, he found that if left in warm water at about 60 deg. C. (140 Fahr.), in half an hour he obtained no coagulation, or only the familiar granular one; but if he employed fresh urine instead of water, the albumen coagulated in hyaline masses, not soluble in water and not changed by alcohol or by boiling in water. A solution of uric acid and dilute phosphoric and hydrochloric acids produced the same result, also a simple solution of urea, while alkaline urine failed. ROBERT SAUNDBY, M.D.

10. *Zander on the Seeds of Xanthium Strumarium.* In the year 1878 numerous deaths, especially among children, were said to have resulted, in a district in Russia, from the use of these seeds, and an oil expressed from them. The symptoms were those of belladonna-poisoning, with dilatation of the pupil. This writer (*Inaugural Dissertation*, Dorpat, 1880) found that seventy seeds produced no effect on himself, although he had heard that ten seeds would cause vomiting and dilatation of the pupil. Again, 340 seeds produced no effect on cats. An alkaloid derived from the seeds, injected subcutaneously into frogs, had no effect upon them. The observations, however, have little value, seeing that he employed seeds two years old, while the ten seeds spoken of above were fresh.

11. *Jaksch on Peptonuria in Acute Rheumatism.*—Dr. Jaksch has examined twelve cases of acute rheumatism as to this point, and he finds (*Prager Med. Woch.*, No. 7, 1881) that:—1. Peptonuria is almost invariably present in the course of the disease; 2. The pepton present is directly dependent on the subsidence of the local inflammatory symptoms. The methods used in testing for and separating albumen, previously to testing for pepton, were those of Hofmeister; and by using the same quantity of urine daily, a rough idea of the variation in quantity of the pepton was obtained.

JAMES ANDERSON, M.D.

SYPHILOGRAPHY.

RECENT PAPERS.

1. QUINQUAUD and ULLMANN.—A Clinical Study of Syphilis in Old People. (*Ann. de Derm. et de Syphil.*, 1881, No. 2, p. 247.)

2. BARTHÉLEMY.—Observations on Visceral, particularly Renal, Syphilis. (*Ibid.*, p. 272.)

3. MOLÈNES. — On Non-infecting Chancres of the Cervix Uteri (diphtheroid variety). (*Ibid.*, p. 295.)

4. LE PILEUR.—New Facts in Favour of Aspiration in the Treatment of Suppurating Buboes. (*Ibid.*, p. 308.)

5. SPILLMANN.—Stricture of the Vagina in a Patient with Tertiary Syphilis. (*Ibid.*, p. 324.)

6. CASPARY.—On the Origin of Hereditary Syphilis. (*Viertel. für Derm. und Syphilis*, 1881, Heft 1, p. 35.)

7. MRACEK. — On Syphilitic Initial Lesions of the Cervix Uteri. (*Ibid.*, p. 47.)

8. SCHUSTER.—Remarks on the Curability of Syphilis. (*Ibid.*, p. 87.)

9. KROWCZYNSKI.—On Excision of the Initial Sclerosis. (*Ibid.*, p. 101.)

10. PAQUET. — The Treatment of Gonorrhœa by Copaiba Resin. (*Gaz. Hebdom.*, 1881, No. 22.)

11. ROLLET, DIDAY, RODET, and others. — On the Treatment of Syphilis. Discussion before the Société Nationale de Médecine de Lyon. (*Lyon Méd.*, 1881, Nos. 15, 16, 17, 19, 20.)

12. LERMOYEZ and HITIER.—On the Use of Pyrogallic Acid in the Treatment of Soft Chancres. (*Bull. Gén. de Thérap.*, May 15, 1881.)

13. BARTHOLOW.—A Case of Progressive Muscular Atrophy associated with Constitutional Syphilis. (*Louisville Med. News*, June 4, 1881.)

14. DUPLAY and BRUN.—On a peculiar and hitherto imperfectly described Form of Gonorrhœal Arthritis. (*Arch. Gén. de Méd.*, 1881, p. 541.)

15. RIGAL.—On a Severe Case of Vomiting caused by Syphilitic Disease of the Brain. (*Gaz. des Hôpitaux*, 1881, No. 70.)

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2. *Barthélemy on Visceral, especially Renal, Syphilis.*—M. Barthélemy reports (*Annales de Derm. et de Syph.*, 1881, No. 2, p. 272) five cases of renal disease in connection with syphilis. In the following instance, the patient improved under specific treatment. A woman, aged 33, who had been infected three years before, was admitted into the St. Louis Hospital, under the care of M. Fournier, in November 1879. Six months previously she had been under treatment for mucous patches, vertigo, and pain in the head. There was at that time no albumen in the urine, and after three months' treatment the woman went out cured. In October diarrhœa appeared; and at the beginning

of November, œdema of the lower limbs and genital organs was noticed. On readmission, the face also was puffy. There was intense dyspnœa, and *râles* were audible all over the chest, but there was no dulness, nor pain in the loins. The urine was copious, and contained a large quantity of albumen. The patient subsequently suffered from an iliac abscess, but she gradually recovered under antisyphilitic remedies, and on her discharge from hospital the urine became only slightly cloudy on the addition of nitric acid.

3. *Molènes on the Diphtheroid Variety of Non-infecting Chancre of the Cervix Uteri.*—This paper (*Ibid.*, p. 295) contains a long string of quotations from the writings of various authors respecting venereal lesions of the cervix, as well as a report of two cases of so-called diphtheroid chancre, which were under the care of M. Martineau in the Lourcine Hospital. Pauline M., admitted February 8, 1881, stated that sores of the genital organs had appeared ten days before. On examination, two ulcers, having all the characters of simple chancres, were found on the right labium, and a third in the left genito-crural fold. The nymphæ were œdematous. A little above the fourchette, were two ulcers similar to those on the labium. There were also some follicular sores about the meatus urinarius, and the glands in both groins were enlarged, those on the right side being inflamed. On the anterior lip of the cervix uteri was a projection formed by the confluence of seven or eight smaller projections, separated by furrows; the whole mass, which was of the size of a franc piece, having somewhat the appearance of the surface of the brain. The lesion was covered by a closely adherent diphtheritic membrane. M. Martineau diagnosed a simple chancre of the cervix. There were also on the anterior vaginal wall two small ulcers, with sharply cut edges. There were no signs of syphilis. On Feb. 13, the false membrane was removed from the cervical ulcer, and the pus from beneath it was inoculated on the patient's thigh. The inoculated spot was then covered with a watch-glass. A well-marked soft chancre was produced. On Feb. 28, the vaginal sores had disappeared without any local treatment; the cervical sore had diminished by one half, and was healing rapidly. The sores of the vulva had already healed under iodoform. In the second case the appearances were very similar to those just described. Auto-inoculation, however, was not practised in this instance. The patient was kept under observation for three months, without showing any sign of syphilis.

4. *Le Pileur on the Aspiration of Suppurating Buboes.*—In a paper published in the *Annales de Derm. et de Syph.*, 1880, p. 224; and 1881, p. 308, M. Le Pileur reports nineteen cases of bubo treated by aspiration. Seventeen of the buboes were in the groin; of these, twelve followed soft chancres, six being virulent and six simple abscesses. One was in a syphilitic subject, two were consecutive to scabies, and three were strumous buboes. The remaining two were submaxillary abscesses. In buboes caused by chancre, the author advises that the pus should be inoculated after aspiration, and, if it be found to be virulent, that a solution of nitrate of silver should be injected into the bubo; thus, according to the author, other openings may be prevented. Even if the opening ulcerate, the course is said to be much milder than after the use of the bistoury. M. Le Pileur thinks suppurating adenitis of every kind ought to be treated by aspiration when fluctuation is distinct. The scar is nearly invisible, or at least insignificant. The duration of the affection is shorter than under the ordinary mode of treatment. The nineteen cases gave an average duration of about twenty-four days after aspiration. For the mode of operating, the author refers the reader to his *Etude sur les Adénites Inguinales*, 1874; but, as far as can be gathered from the cases reported, the pus would seem to have been simply drawn off through a trocar, of which the point could be concealed, and a shred of lint placed in the opening and kept there for about twenty-four hours. Poultices were also applied.

7. *Mracek on Syphilitic Initial Lesions of the Cervix Uteri.*—Dr. Mracek of Vienna begins his long paper (*Viertelj. für Derm. und Syph.*, 1881, Heft 1, p. 47) with a list of authors who have written on the subject, and quotes Ricord, Sigmund, Fournier and others. The author then proceeds to consider the cases treated by him in Sigmund's clinic from Oct. 1877 to Dec. 1879. The total number of women was 659, of whom 437 were syphilitic. Of these 437, 40 were suffering from primary syphilis, 368 from secondary, and 29 from tertiary or gummy affections; 375 of these women (nearly 86 per cent.) had lesions of the vaginal portion of the uterus, which was the seat of primary syphilitic lesions in 21, and of secondary syphilitic lesions in 96. In 99, the uterine changes were due to pregnancy and the puerperal state; and, in 159, to non-syphilitic affections of other kinds. In the remaining 62 cases, the cervix was healthy. Thus, nearly 5 per cent. of the whole number of syphilitic women had primary lesions of the cervix. The author next reports 24 cases, which he considers to be examples of primary syphilitic disease of the cervix. These cases, of which 22 were in Sigmund's clinic, one under the care of Arlt, and one under the care of Späth, had all been under the author's own observation. Seven cases came under treatment before the appearance of general symptoms of syphilis; but, in all these, lesions of the external genitals were present as well as those of the cervix. In the remaining 17 cases, secondary symptoms had already appeared. The lesions observed on the cervix consisted of one or more ulcers with indurated base, and surrounded by a red areola. The cervix itself was also swollen in many instances, but there do not appear to have been any characteristic signs by which the syphilitic nature of the sores could have been established in the absence of other symptoms of the disease. The lesion was most frequently on the anterior lip (eight times); the whole circumference of the os was involved seven times; the posterior lip alone four times, and both lips separately, three times. In one case, the everted mucous membrane of the os and lower portion of the cervical canal was the seat of the lesion. As regards diagnosis, the author agrees with Sigmund that it depends on the exclusion of other causes and the presence of other signs of syphilis. In seven cases, there were also papules of the vaginal mucous membrane; in ten, of the vestibule and vaginal entry; and in eighteen, of the labia. Only twice was the cervix uteri alone affected. The lesions were readily amenable to treatment, consisting of irrigation of the vagina three or four times a day, and the application of tampons soaked in solution of iodine, iron, or iodoform, or of iodoform ointment. In some of the cases, where the whole cervix was much infiltrated, tincture of iodine was applied daily. General treatment by mercury or iodide of potassium, or both, was also carried out at the same time.

10. *Paquet on Copaiba Resin in Gonorrhœa.*—M. Paquet presented to the Société de Thérapeutique (*Gaz. Hebdom.*, No. 22, 1881) capsules made by himself, and containing only copaiba resin after separation of the volatile oil. This separation was suggested by the reserches of Gubler, who showed that the resinous portion of copaiba was eliminated by the kidney, while the essential oil was eliminated by the respiratory organs and by the skin, giving rise to a peculiar odour of the breath, and, not unfrequently, to the well-known form of rash. The capsules contained three parts of copaiba resin, and two parts of oil of sweet almonds, and had been prescribed by MM. Mauriac, Paul, and Gallard, who found them quite as effective as the balsam in its ordinary state, while the disagreeable consequences of the latter were escaped.

14. *Duplay and Brun on a Form of Gonorrhœal Arthritis.*—In the *Arch. Gén. de Méd.*, May 1881, p. 541, MM. Duplay and Brun discuss a form of gonorrhœal arthritis which, according to them, had not before been fully described. This variety of arthritis may come on suddenly, without any known immediate cause, or it may follow slight injury. Most frequently, however, it is preceded by malaise, slight fever, loss of appetite, etc. The first symptom is pain, which comes on with great acuteness. This pain begins, and is always worst, just at the spot where the articular surfaces of the bones touch each other, and is increased at night. Besides this spontaneous pain, acute suffering is caused by pressure about the joint. Swelling soon follows the pain, and it also first appears exactly at the line of junction of the bones which form the joint. There is little or no effusion into the synovial cavity, the swelling being chiefly due to infiltration of the periarticular tissues. The œdema extends above and below the affected joint, and sometimes there is an obscure kind of fluctuation, leading to a suspicion of abscess. Two cases are mentioned in which incisions were made under this belief. The swelling is not due to effusion into the sheaths of the tendons. In the treatment of this form of arthritis, the most important point is absolute rest of the joint by means of a plaster-of-Paris bandage. The pain then soon disappears, and, in favourable cases, the joint recovers almost entirely. If, however, the joint be not fixed until several days after the onset, more or less stiffness is likely to remain; and if the affection be neglected altogether, ankylosis will probably occur; indeed, this sometimes happens in spite of careful treatment. The wrist and the elbow appear to be the joints most frequently attacked, while the knee, which is, frequently the seat of the effusive form (hydrarthrosis) is comparatively seldom involved. However, any joint may suffer, and the authors have seen marked examples of this form of arthritis in the metacarpal, phalangeal, and sterno-clavicular articulations. But whatever joint is attacked, the symptoms are essentially those which have just been described. The paper concludes with notes of six cases (three of the patients being women), illustrating the various points already mentioned; the chief features of this form of joint-affection are the occurrence of pain and swelling, which always begin and remain most marked exactly at the interarticular line, the presence of crackling, and the liability to ankylosis if the joint be not fixed early.

15. *Rigal on the Administration of Chloroform in a Case of Vomiting caused by Syphilitic Disease of the Brain.*—A woman, aged 35, who had been under treatment for gummata, etc., came under the care of M. Rigal at the Hôpital Necker (*Gaz. des Hôpitaux*, 1881, No. 70), suffering from cephalalgia and vomiting, supposed to be caused by an intracranial syphilitic growth. The headache was quickly relieved by mercury and iodide of potassium, but the sickness was uncontrolled by any of the usual remedies, *e.g.*, ice, morphia, chloral, etc.; while a daily dose of two grammes (30 minims) of chloroform checked it at once. The drug was discontinued at the end of three or four days, but there was no return of the vomiting.

ARTHUR COOPER.

REVIEWS.

Rheumatism: Its Nature, its Pathology, and its Successful Treatment. By T. J. MACLAGAN, M.D. London: Pickering and Co. 1881.

WHATEVER may be thought of the arguments of this book taken as a whole, none will deny that in many ways it is possessed of conspicuous merit. Dr. Maclagan is already well known to the profession by a double-sidedness which always commands attention in whomsoever we find it; by an aspect which, while always inclined to the theoretical side of medicine, and therefore to an *à priori*, perhaps even to an imaginative, line of argument, yet does not lose touch of the ever lively sense of the aim of all theories to descend to the level of practice. In the book before us, Dr. Maclagan, already long an advocate for a particular form of treatment for rheumatism, puts the questions concerned into definite shape. But although the author carries his readers pleasantly along with him by the perspicuity of his style, he leaves behind him a feeling that all cannot be quite such straight sailing as he would have it to be; his advocacy is the case of a pleader, not the statement of a judge.

As a statement of the case of the treatment of rheumatism by salicin it is ingenious, intelligible, well sustained, and in every way excellent. The subject is well and ably thought out in a particular line; theory and practice are consistently squared; round pegs seem everywhere to fit into just the round holes made for them, so that the reader can hardly resist coinciding in the author's conclusion that salicin, given in thirty to forty grain doses every hour till an ounce is taken, and then in somewhat less frequent doses till a second ounce has disappeared (the price of the drug being apparently something under twelve shillings an ounce), is as much a specific for acute rheumatism as quinine is for ague. The author's plan is shortly as follows. There are first of all a few skirmishing chapters upon the symptoms of rheumatism—acute, subacute, and chronic; the differential diagnosis; and the duration of rheumatic fever; its seat and special characteristics. In this way we gain the position that rheumatism is an inflammation of specific nature, the result of a special blood-poison. The nature of this poison is next considered. After a lengthened discussion, the lactic acid theory is dismissed as untenable. Lactic acid is not, indeed, considered to be without any action; or as having no share in the production of the phenomena of a rheumatic attack; it may probably stimulate the skin to the excessive action which is common, and may aggravate the joint-pains; but such

actions do not show that lactic acid is the rheumatic poison. For a miasmatic theory of rheumatism, it is first argued that the rheumatic poison enters the body from without; next, that such a poison must be either a contagion or a miasm. Since it cannot be the former, for reasons given, it must be the latter; and this view is corroborated by the fact that the attributes of the rheumatic are the same as those of the miasmatic fever. These are the aptitude for occurrence in low-lying and damp localities in certain seasons of the year; the peculiar liability of some people, the want of definite duration of symptoms, and the incommunicability of the disease. A still further likeness may be traced in the symptoms. Irregularity of type; change of constitution—by which the subject is rendered more susceptible after one attack; and the power of arrest which resides in particular drugs in the cinchona compounds for ague and the salicylic compounds for rheumatism, make it evident to the author that the rheumatic and malarial poisons are closely allied. The nature of malaria is next discussed, and the view is maintained that it consists of minute organisms. In considering the mode of action of malaria, contagia and malaria, or continued and intermittent fevers, are contrasted; and a taking analogy is suggested between the two groups, by separating each into two varieties, the eruptive and the non-eruptive. But, in so doing, some violence is done to ordinary classifications; and, in writing, we find ourselves in a difficulty before we are aware of it. We have spoken above of continued fevers; the author talks of 'contagia' only, and the group of contagia includes relapsing into the continued fevers, and thus are obtained the eruptive and non-eruptive forms, relapsing fever being the non-eruptive, and scarlatina, typhus, etc., the eruptive. For miasmatic fever, rheumatism, with its joint-disease, is the representative of the eruptive; and intermittent and remittent fevers are non-eruptive. Various points of difference mark the contagia from the miasmata; both, being dependent upon minute organisms, are dependent also upon the environment of these bodies, that is, upon something which they find in their nidus, and which is necessary for their reproduction.

This second factor, as the author calls it, determines the nature of the attack. If it be plentiful, the contagion gets into good quarters, and the attack is prolonged and severe; if small, the field is a small one, and the resulting attack is short and mild. 'The course of the continued fevers is continuous and regular, because the quantity of the second factor in the nidus does not fluctuate, and because, therefore, the contagion goes on, being consumed steadily until the nidus is exhausted. If the contagion were an organism which naturally went through a series of changes which involved alternate periods of activity and repose, and if the phenomena of the febrile state were the result of such changes as occurred only during the period of activity, the propagation of such an organism in the system would give rise to a malady characterised by alternations of pyrexia and apyrexia. The distinction between the malarial and continued fevers in conferring immunity from a second attack, is explained by the hypothesis that the second factor is thoroughly exhausted in the one case and not in the other, germs being left, which can be readily reproduced, in the latter. Reasons are given for thinking that the second factor exists in some cases in the blood, and is then readily reproduced; in other cases in the solid viscera, and is then easily exhausted. The continued fevers are of the latter class. In rheumatic fever, however, where it is supposed to reside in the fibrous structures of the joint, which would be somewhat equivalent to the solid viscera, we are told—somewhat contradictorily—we think, that the same natural tendency which originally led to the existence of the second factor in these tissues, leads also to its reproduction after it has been exhausted. We are not able to follow the author through the rest of his argument, which is elaborate and interesting. There are many places to which we could point in which it is somewhat strained, but nowhere are the views advocated without a plausibility which gives zest to the reading. We may take exception, however, to a statement on page 146, with reference to mitral contraction, which is not supported by any evidence that is worth attention. In speaking of endocarditis, the author appears to us to mean to imply that mitral contraction is occasionally an immediate result of an attack of acute rheumatism; and he states that inflammation both of the fibrous ring (the change he has previously described as producing the contraction) and of the valves indicates a more decided action of the rheumatic poison on the endocardium and a more severe attack of endocarditis, than inflammation of only one of them. That a presystolic bruit may be developed occasionally in the course of an attack of acute rheumatism, we are by no means indisposed to allow; but it is never a typical one, and indeed always possesses so little of any characteristic feature, that but few will admit its existence at all under such circumstances. But if it do exist, it cannot be held to indicate contraction of the orifice from thickening of the fibrous ring, but probably excessive vegetation upon the surface of the endocardium. Nor are we by any means sure of the truth of such a dictum as this, 'endocarditis rarely affects the right side of the heart'. It would be more correct to say that it often affects it, but that it seldom leads to the after-consequences which are found on the left side, of thickening and ulceration. And this is no unimportant point. The author sees in the rheumatic poison one which has a special predilection for particular parts; the fibrous textures enjoying the highest degree of functional activity, and being most subject to strain. But is this so? Is it not rather with rheumatism, as with syphilis, that it damages certain parts of the body alike, but, after it has worked this damage, the after-results of thickening, and so on, are dependent upon chronic processes of inflammation kept up by the strain to which some parts are constantly liable? In this light, both the left and the right side of the heart would be nearly equally liable to rheumatic endocarditis; and that some right-side inflammation is much more common than is usually asserted, may be readily proved by anyone with the requisite opportunities for dead-house investigation; but the right side, having less work to do, is enabled to repair the hurt, while the disease on the left side becomes chronic. This is not the whole of the question. There are, probably, chronic processes engendered which are at no time acute; but these also, we would hold, are more dependent upon the work done by the diseased part than upon the special localisation of the poison, which is probably all pervading.

The least satisfactory part of the book, as was to be expected, is that which devotes itself to treatment. Many will surely smile at the curt summary of the various treatments which have at one time or another been received with favour, and at their dismissal, one after another, somewhat in such terms as —'the results of this treatment seem to have been as

good as those of any other'. Upon salicin alone does the author grow eloquent, and here we have a remedy which for rheumatism acts the part of quinine for ague. Perhaps it was hardly to be expected, but it could be wished that the failures of the salicylates had been more thoroughly weighed. No one doubts now that salicin and the salicylates have a powerful influence in mitigating the symptoms of acute rheumatism. What we want is carefully weighed evidence, how far it does act as a specific or how far only by controlling certain symptoms. To this end, a book upon the failures of the salicylates and a rigorous examination of a number of such cases, carefully observed, of which many are now ready for analysis, would supply evidence which would far surpass in strength even the most brilliant pleading, and would settle the question which Dr. Maclagan, with all his ability, has not even yet closed.

James F. Goodhart, M.D.

Medical Diagnosis, with Special Reference to Practical Medicine. By J. Da Costa, M.D. Fifth edition, pp. 924. Philadelphia: Lippincott and Co. 1881.

Among the many guides to clinical medicine of both home and foreign production, there is not one that excels, even if it equals, the one before us. The recent manual by Dr. Finlayson suggests itself, and will bear most favourable comparison. The value of such works as these is variously estimated by different workers, but there can be no doubt that to clinical teachers a guide for their students is almost a necessity, to give some coherence to the scattered facts and observations that bedside teaching furnishes, in contrast to the regularly arranged descriptions of systematic lectures. The danger in all such aids is, that they may permanently impress on the student's mind what may be called a tabular aspect of disease, and an expectation on his part that the cases he will meet with will conform to a neatly arranged scheme and table, that has been a most serviceable guide in giving him his first ideas, and served as a preliminary chart, by which to steer in his first entrance on the vast subject of practical medicine. It may safely be left to a judicious teacher to determine when to discard the help of tables and dogmatic generalisations, and erect upon the groundwork that they have provided a more comprehensive view of disease, with the special features that every case separately offers; to commence with which, almost invariably results in the bewilderment of the learner. As a guide of this character, Dr. Da Costa's book deservedly holds a place in the highest rank. It is brought up to to-day, or as nearly so as any work can be that tries to keep pace with a progressive science (in passing, it may be mentioned that the spectroscope as an instrument of observation is not referred to). The various methods of examination, physical, chemical, etc., the explanation of the observed signs and symptoms, their clinical significance, and, finally, the reasoning that leads to a diagnosis, are excellently and clearly set out in reference to all the organs of the body; and the tables, when introduced, are well selected, and better expressed than is often the case. The introduction is admirable, but would gain in value if some suggestions were made as to how to question patients, an art of the greatest difficulty to the student, and often very imperfectly acquired.

W. H. Allchin, M.B.

The Student's Guide to Medical Case-Taking. By Francis Warner, M.D.Lond., M.R.C.P. London: J. and A. Churchill. 1881.

This work is based on experience gained as Medical Registrar to the London Hospital. It is intended to be a guide to the student at the bedside, directing him as to the best way to observe the symptoms and to arrange his notes. An outline of 'Instructions for Case-Taking', with additional instructions for children's cases, occupies the first few pages. In the body of the work, the diseases affecting the system generally, and then those peculiar to each organ or system of organs, are systematically passed in review. On the left-hand page the symptoms to be especially observed in any given case, together with some hints as to the most probable causation, are arranged under the usual headings; on the right-hand page the bearing of the facts noted is, wherever necessary, more fully explained. Diseases of the nervous system are, as a rule, fully dealt with, but the subject of hemiplegia might have been elaborated with advantage, and some assistance given to the student to enable him to localise approximately the site of the lesion. No fault can be found with the necessarily dogmatic tone in which the work is written. We have tested the manual in various subjects, and have found its statements to be generally accurate, clear, and well up to modern views on pathology. The student who observes disease with its aid at the bed-side, will have little or nothing to unlearn, though it is, of course, intended that he should also study some systematic treatise on medicine. The practical value of the volume would be increased by a more copious index; and a short account of the surface markings and normal position and relation of organs would be a desriable addition in a future edition, which, there can be little doubt, will soon be called for.

Dawson Williams.

Des Dyspepsies Gastro-Intestinales. Par le Professeur Germain Sée. Paris: Adrien Delahaye et Émile Lecossnier. 1881.

Any work emanating from the pen of M. Germain Sée needs nothing to recommend it to the attentive consideration of the medical profession, and the volume now before us is all that was to be expected from one so distinguished. It aims at considering the various forms of gastro-intestinal dyspepsia from the side of clinical physiology. A Physiological Clinique it is called, and such a title well explains its purpose and its scope. It is a thoughtful and studied production upon a difficult subject, and it is an elaborate attempt to give a complete natural history of the varied forms of dyspepsia. There are chapters on the chemical physiology of dyspepsia; upon the nature and cause of the varied symptoms of the different forms; upon the particular forms of dyspepsia; constitutional, such as gouty, anæmic, diabetic, alcoholic, nicotic, tuberculous, nervous, etc.; local, such as gastric, pancreatic, biliary, intestinal, and so on. Then follows a chapter on diagnosis, the comprehensiveness of which will be acknowledged when we say that the subject is treated under differential diagnosis; chemical diagnosis, by which is understood a recognition of the different chemical processes which have brought about the alterations; etiological diagnosis, or the diagnosis of dyspepsia according to their origin, and diagnosis of the locality of the disease. Pseudo-dyspepsias are treated in a chapter under several types. These are simple atony

of the intestines, mechanical atony, atony with the formation of coagulated mucus, atony from faulty bile, and spasmodic atony. The last section is on treatment, the subject being considered, not in relation to particular diseases, but in relation to the action of particular drugs or modes of procedure. It is considered, and perhaps rightly, that, when the fault has received consideration, and the mode of action of certain drugs, diet, etc., has been considered, there will be no difficulty in applying a proper remedy to any particular form of dyspepsia. It appears that throughout the whole volume a high standard of rational diagnosis and therapeutics has been steadily kept in view, which ought to be thoroughly appreciated; and the more so, because one cannot but feel that any such aim tends, no doubt, to destroy the popularity of a book. Many will certainly take up this volume, and lay it down again, with the idea that it gives them no 'tips'. Nor does it. If we have read its aim rightly, it goes to the root of the questions involved, and endeavours, as far as is possible, to give us a more complete knowledge. It will have none of the deceptive gloss of empiricism. In this M. Germain Sée deserves the thanks of science. At the same time, we feel compelled to add that we think that he has made his work needlessly indigestible by the style he has thought fit to adopt, and which must appear to many to be one of wearisome subdivision. What with chapters, articles, paragraphs, etc., one finds it both difficult to preserve the thread of the investigations, so as to get at the sum of the results, and more difficult still to find any information that may be wanted in a casual way. This blemish is, however, somewhat atoned for by a good index; and this we can safely say, that no one who will take the pains to master the contents of the book can fail to have a more comprehensive view of the matters of which it treats.

JAMES F. GOODHART, M.D.

Suggestions as to Lines for Future Research. By A. H. SMEE. London: G. Bell and Sons. 1881.

MANY of these suggestions are valuable, and all the subjects dwelt upon are interesting and important. The following appear open to criticism. The author suggests the employment of peroxide of hydrogen *vice* carbolic acid, as a dressing for fœtid wounds. There can be no question that this agent would act in such cases as an effectual deodoriser; and, as Mr. Smee points out, it has no injurious action upon the organism. But, unlike carbolic acid, its great instability would render it impossible to dress a wound with peroxide of hydrogen and leave it for many hours, in the hope that it would remain free from septic changes. We have yet to discover an agent as perfect antiseptically as carbolic acid, and at the same time completely innocuous in every case to the human organism.

On page 20, the author argues from the destruction of so 'comparatively highly organised a structure' as a parasitic worm by the agency of peroxide of hydrogen, that this agent may prove useful in destroying lower forms of vegetable and animal life. It might be worth while to make such experiments; but unfortunately the vitality of these 'lower forms' is so extraordinary, that the destruction by this agent of organisms more highly developed will afford little encouragement *per se* to the investigator.

On page 29, in attempting to throw doubt upon the diffusion of typhoid fever by sewer-gas, it is stated that no 'epidemic' of typhoid fever had existed in a town of 4,000 inhabitants during ten years, throughout the whole of which time a pipe communicating with the ventilating shaft of the main sewer, and untrapped, had served as overflow-pipe to a large tank used for the water-supply of the village. The evidence, however, against the aërial conduction of typhoid is not complete, until Mr. Smee can also inform us whether any so-called sporadic cases of typhoid had occurred in the town in question during or shortly previous to the period of ten years aforesaid. Till he can do so, it can hardly be said to be 'incredible' that the sewer was, during that period, 'free from the infective matter of typhoid'.

Mr. Smee's suggestions, *in re* 'vaccination', are of great interest; and the geographically arranged statistics with which the paper concludes are evidently the result of considerable patient investigation, and may be of service to medical practitioners in choosing or avoiding various 'health-resorts' for their patients, etc.

G. STILLINGFLEET JOHNSON.

Diseases of Women, including their Pathology, Causation, Symptoms, Diagnosis, and Treatment. By ARTHUR W. EDIS, M.D., F.R.C.P. With illustrations. London: Smith, Elder, and Co. 1881.

IT is some time since so succinct and withal complete an account of the diseases of women has appeared as Dr. Edis' manual. It will form a trustworthy and intelligible guide to practitioners as well as students. Its order and clearness are remarkable. For instance, where the author wishes to emphasise the differences in the signs and symptoms of ovarian tumour and ascites, he has tabulated them *vis à vis*, so that the differential points stand out prominently, and are easily seen. The chapters on dysmenorrhœa and amenorrhœa, two symptoms which every practitioner has to treat, are exhaustive and detailed, both as to the causation and treatment.

Dr. Edis has omitted nothing old, and added much that is recent in gynæcological knowledge. The modern operation of Emmet is set forth in full, as are the latest operative procedures in lacerated perinæum. A chapter has been added on diseases of the bladder, and in it the author has not thought it unnecessary to give a careful description of the mode of introducing the female catheter. The book contains 528 pages, with 148 illustrations, nearly all of which have been well chosen and executed. The book will be welcome as well on account of its intrinsic merits, as because it will fill a place in gynæcological literature which was empty.

FANCOURT BARNES, M.D.

NEW INVENTIONS.

NEW STEAM SPRAY APPARATUS.

Messrs. James Allen and Sons, 21 to 23, Marylebone Lane, Oxford Street, London, who are now well known in the medical profession as the inventors and manufacturers of extremely convenient apparatus for the sick room, such as the portable Turkish hot-air and vapour bath, bronchitis kettles, ventilating croup kettle, and various convenient invalid food warmers, have sent us a new model of a steam spray apparatus, which is likely to be at least as popular as their well-known hospital spray producer. It has been made to meet the wants of many who require a small spray to use in place of

the larger apparatus. Its merits are its durability and portability, its independent boiler, and the variety of uses to which it can be applied. It not only serves as a small steam spray, but it may also be used as a small hand spray, for dressing or for steam douches to the throat and pharynx with the funnel piece. It has metal jets instead of glass, which break quickly, and it is provided with safety valves which ensure absence of risk in using it. It is handy, portable, likely to wear well, and cheap.

MISCELLANY.

We call the attention of our readers to the forthcoming second edition of Dr. Neale's *Medical Digest*, the first edition of which formed the seventy-fifth volume of the New Sydenham Society's publications, in 1876. The new edition will include more than 20,000 additional references; the *British Medical Journal*, London Medical Record, and *Practitioner*, having been added to the list of journals to which reference is made. No more useful book of reference has ever been produced, and we heartily commend it to our readers' notice. A digest of reference so compendious, extensive, and well selected, is invaluable.

Quassia Wood.—A decoction of this wood is recommended as a preservative against the bites of mosquitoes, flies, etc., and as a valuable agent for protecting choice fruit-trees, etc., from insects.

Superstition in the New World. — A well-dressed and apparently intelligent woman appeared, says the *Medical Record*, at the dog-pound in New York the other day, and asked for the fore-quarter of a dog that had been drowned. She said that her sister had consumption, and that some one had told her that the fore-quarter of a drowned dog made into a stew would cure the disease. She got the meat, and went away contented.

Skull-Measurements. — Professor Flower has published some further results of his researches with reference to the human skull. He states that the largest normal skull he has ever measured was as much as 2,075 cubic centimètres; the smallest, 960 cubic centimètres, this belonging to one of those peculiar people in the centre of Ceylon who are now nearly extinct. The largest average capacity of any human head he has measured is that of a race of long flat-headed people on the West Coast of Africa. The Laplanders and Esquimaux, though a very small people, have very large skulls, the latter giving an average measurement of 1,546; the English skull of the lower grades shows 1,542; the Japanese, 1,486; Chinese, 1,424; modern Italian, 1,475; ancient Egyptian, 1,464; Hindoos, 1,306.

Statistical researches as to the colour of the hair and eyes of children have been made in all the cantons of Switzerland, with the exception of Berne, Geneva, and Tessino. The investigation as to the first of these cantons is now terminated, and the results of the examination of 94,221 children are published by Professor Studer in the *Proceedings* of the Berne Society of Natural History (No. 989), and are accompanied by four coloured maps, which show graphically the results. It is seen from these researches that in the canton of Berne the dark type prevails over the fair, but that the pure types are not so numerous, especially in the central parts, as the mixed ones. The pure fair type, which makes 9 to 11 per cent in the north-eastern parts of the canton, increases to the south (11 to 14 per cent. in the middle parts, and 15 to 20 per cent. in the Alps), and reaches its highest percentage in the secluded valley of the Saanen (28 per cent.) The dark type is most numerous in two regions—that of the western lakes and Old Rhætia (21 to 29 per cent.), whilst in the middle parts it reaches only 21 to 25 per cent., and only 16 to 20 per cent. in some secluded valleys. After having shown the distribution of mixed types, Professor Studer considers these data in connection with history, and comes to several interesting conclusions.

Surgery among the Mound-Builders.—Dr. Bradford (*Boston Med. and Surg. Jour.*, May 12, 1881), recently exhibited at the Boston Society for Medical Observation, some morbid specimens picked from over a thousand skeletons of the mound builders. They were, first, a femur with a perforation partially filled up and surrounded by evidences of suppurative osteitis, which may have resulted from external violence; second, two tibiæ. One was normal, while the other gave evidence of caries of the ankle. An exostosis showed an attempt at repair. The individual who had the latter bone must have been long sick, and gone about with some artificial support. Another specimen showed caries of the spine. The whole dorsal region was involved, and cure by ankylosis had taken place. The rest of the skeleton showed the person to have been a young female. Years must have elapsed before a cure was effected, during which time she must have required careful nursing. Fourth, two fractured femora had united in such good position that they must have been treated with considerable surgical skill. There was no bowing outward or forward, and but little rotation. The position could not have been maintained till the cure was attained without some pretty efficient means of maintaining the axis of the limb. The results would be considered good in these days in cases where extension could not be employed. From these circumstances, it is very probable that the mound-builders were as much superior in surgical skill to the modern Indians as they were in civilisation and knowledge of the arts.

German Sanitary Exhibition.—An exhibition of sanitary appliances, including means for the preservation of life, will be held in Berlin, from June 1st to September 30th, 1882. At the invitation of the Society for Technical Hygiene, a central committee of about 160 members, resident in various parts of Germany, has been formed; and local committees have also been established for the purpose of promoting the object in view. The lists of the local committees include the names of Dr. von Horn and Hildebrandt, and Professor Schönborn, of Königsberg; Drs. Erhardt, von Gietl, Pettenkofer, and Voit, of Munich; Dr. von Bardeleben, of Coblenz; Dr. Becker, of Cologne; Dr. Graf, of Elberfeld; Professors Finkelnberg and Rühle, of Bonn; besides numerous medical practitioners, municipal officers, and other persons. The exhibition will include objects, machines, and apparatus intended to promote public and private health, to rescue life, and to protect against accidents, as well as to provide succour to the injured in war and in peace, along with literature of the subject, including drawings, models, and descriptions. All persons able to contribute articles to the exhibition are invited to do so; and applications will be received up to November 15th. The local committee for the Rhenish province and Westphalia, which sits at Cologne, has appointed commissioners for each group of articles, with instructions to search out whatever is new and valuable in the two provinces, and to take measures, by correspondence and negotiation, for ensuring its being shewn in the exhibition. The 'Concordia' Society for promoting the welfare of the labouring classes, at its general meeting in Frankfort, determined to shew its practical interest in the exhibition by the institution of prizes. It offers a prize of 1000 marks (£50) for a popular essay, to occupy about four sheets of printed matter, on the most rational method of feeding the poorer classes, especially mechanics; also one for a guide to the building of houses for the families of labourers. Persons desiring further information respecting the prizes are referred to the General Secretary of the Concordia Society, at Mentz. A periodical devoted to the interests of the exhibition has been established in Berlin under the name of *Correspondenzblatt der Allgemeinen Deutsches Ausstellung auf dem Gebiete der Hygiene und der Rettungswesens*, and will continue to appear until the close of the exhibition.

A THERAPEUTIC HINT.

THE superiority of a mild natural aperient water over the nauseous draughts, aperient oils and pills, has long been recognised abroad, but it is only now making itself felt in this country. Sir Henry Thompson, in his clinical lectures, has long taught his pupils to profit in this respect by the experience of the great European teachers; it is ratified by the universal approval of all who have made the practical trial. The fashion has prevailed in England of improvising chemical and pharmaceutical formulæ, intended to imitate the subtle combinations of nature. Professor Trousseau, addressing his clinical class, and referring to the remarkable curative efficacy of natural aperient mineral waters, says:—'Although Chemistry may be the handmaid of Medicine, she goes beyond her sphere when she applies the conclusions of the laboratory to the treatment of the sick. Chemistry stands no nearer to Medicine, because she teaches us how to prepare or to analyse medicines, than she does to the art of Painting, because she prepares the painter's colours.

Say what the chemists may, mineral waters do not operate alone by means of their predominant mineral constituent. It is by means of association with many others which the chemists have demonstrated, and probably with others still that have escaped their research, and nature has done for this element what we attempt every day to do in pharmacy when we seek to enhance or to mitigate the power of a medicine by associating it with others. The authors (Professor Stillé and Maische) of the NATIONAL DISPENSATORY of America, commenting on this subject, say:—'It is notorious that the medical use of the individual elements of natural mineral waters, isolated from their natural associations, no longer produces the effects of the original mineral waters. In these facts, again, we perceive the excellency of nature and the insufficiency of art.' Practitioners who employ HUNYADI JÁNOS NATURAL MINERAL WATER will find these facts verified by their experience. Its natural constitution includes not only sulphate of soda, sulphate of magnesia, sulphate of potash, chloride of sodium, and carbonate of soda, but also carbonic acid gas, free and half combined, and its action in stimulating the activity of the gastro-intestinal canal is combined with the augmentation of intestinal secretion, stimulation of tissue change, and the elimination of nitrogenous elements as well as of carbo-hydrates. Artificial combinations vainly attempt to imitate the action of this happily constituted aperient water, of which Dr. Silver, physician and lecturer on clinical medicine and physiology at Charing Cross Hospital, says:—'I look upon the introduction of HUNYADI JÁNOS as compared with other similar waters, as an advance almost as great as the use of these was an improvement on the employment of Glauber's or Epsom salts in their simple form.' HUNYADI JÁNOS NATURAL APERIENT WATER has been recommended and employed by almost every eminent physician in Europe and Great Britain, and testimonies in its favour are signed by men not less eminent than Baron Von Liebig, the illustrious Professor Virchow of Berlin, Professor Von Baumberger of Vienna, Professor Dr. Scanzoni (Von Lichtenfels) of Würzburg, Professor Dr. Freidreich of Heidelberg, Professor Von Buhl of Munich, Professor P. Spiegelberg of Breslau, Professor Von Nussbaum of Munich, Dr. Von Gartner of Stuttgart, Dr. Hermann Weber, Dr. John Macpherson, Dr. Rawdon Macnamara, Professor Aitken, F.R.S., Dr. T. Lauder Brunton, F.R.S., Dr. F. T. Roberts, Dr. A. Silver, Dr. Burney Yeo, etc., etc.

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A DELICIOUS BEVERAGE AND TONIC,

Made from Port Wine, Liebig's Extract of Meat, and Extract of Malt; Nutritious, Strengthening, Stimulating, Flesh-forming, Health Restoring, Suitable for the Robust in Health, as well as the Invalid. Strongly recommended by the Medical Faculty. An Immediate Benefit is experienced after taking it: the Frame is Invigorated, and no ill effects follow.

LIEBIG'S EXTRACT OF MEAT AND MALT WINE (COLEMAN'S).

TESTIMONIALS.

Thorpe Hamlet, Norwich, February 23rd, 1881.

Sir,—A short time since I was induced by the novelty of the title to send for a bottle of your Liebig's Extract of Meat and Malt Wine. I was perfectly acquainted with the value of the *Extractum Carnis*, and not quite a stranger to the invigorating and fortifying properties of Malt Wine, and, therefore, felt a natural curiosity to test them when combined. Men who work hard, as I do, not muscular hard work, but that which is quite as exhausting, viz., brain work, very often experience the need of, and have sometimes an almost irresistible craving for, a 'pick me up'; and very often the panacea for a time for lassitude, and that state of mind which renders work irksome, are alcoholic stimulants, the use of which must sooner or later end disastrously. The man who can furnish a remedy sure, certain, and harmless, for the lassitude which follows constant brain work, is a benefactor of his species, and may be said to have added many years of usefulness to the lives of useful men. Your extract, if a success, and when more generally known, will be used by all toilers of the mind.

Yours faithfully, O. D. RAY.

LIEBIG'S EXTRACT OF MEAT AND MALT WINE (COLEMAN'S).

Queen's Crescent, Haverstock Hill, March 5th, 1881.

Dear Sir,—Some time since, being greatly fatigued with over-work and long hours at business, my health (being naturally delicate) became very indifferent. I lost all energy, strength, and appetite, and was so weak as to be scarcely able to walk. As you are aware, I sent for a dozen of your Extract of Meat and Malt Wine, which, in a few days, pulled me up marvellously. Three or four glasses of it daily have quite altered and restored me to better health than ever, 'without the assistance of a doctor'. I am now giving it to my son twelve years of age, whom we have always thought consumptive, and from a puny ailing boy he seems to be fast growing into a strong healthy lad. Enclosed you have a cheque. Please send me two dozen of the 'Extract'. With thanks for your prompt attention to my last.

I am, Sir, yours truly, GEORGE A. TYLER.

LIEBIG'S EXTRACT OF MEAT AND MALT WINE (COLEMAN'S).

Gransopund, February 25th, 1881.

Mrs. Coulson thanks Mr. Coleman for the book and stamps, and she has no doubt but that 'the tonic' is a good one. Mrs. C. encloses twelve stamps for basket.

LIEBIG'S EXTRACT OF MEAT AND MALT WINE (COLEMAN'S).

Vicarage, Kingsbridge, Devon, January 25th, 1881.

Dear Sir,—We are ten miles from the railway, and have been snowed up, consequently the wine has only just arrived. I enclose a cheque for £2 11s. 6d. I like the wine, and will recommend it.

Mr. Coleman, Norwich. Yours faithfully, A. N. KINGSTON.

Pints, 27s. per dozen; Quarts, 50s. per dozen. Carriage paid to any Railway Station in Great Britain. Sample Bottle sent for 27 stamps.

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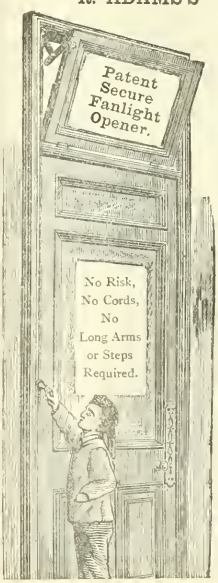

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In 1881, from May 20th up to August 20th, the number of persons who have during the season taken the Water at Aix la Chapelle is 16,088.

This Sulphurous Water contains—

SODIUM BICARBONATE,
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which is so highly esteemed and recommended by the Faculty to effect prompt and radical cures of Cutaneous and all Diseases of the Blood.

This Water has only been bottled of late by a special method, which preserves all its curative properties, and enables people to use this remedy at home, without incurring the expenses of a journey to its sources.

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Expressed from the fresh seeds of Gynocardia Odorata (R. Br.) and imported by C., S., & Co. in a condition of absolute purity.

INVALUABLE IN RHEUMATISM, SCROFULA, ECZEMA, LEPROSY, PSORIASIS, AND ALL SKIN DISEASES.

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These offer the best facility for administering the Oil internally. They dissolve readily in the stomach, and in every case the production of the full therapeutic effect of the Oil may be relied on.

Each Perle contains Four Minims of the Pure Oil, and one to four may be taken for a Dose.

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ANODYNE AMYL COLLOID.

(Secured by their Registered Trade Mark.)

Strongly recommended as a most valuable topical application in cases of Neuralgia, Sciatica, Lumbago, and all Muscular Pains. It is prepared with Hydride of Amyl, Aconitia, Veratria, and Ethereal Collodion, etc. The Hydride of Amyl, by its rapid volatilisation, often produces immediately the desired result; but [illegible] the pain continue, the alkaloids can be brought into increased activity by applying moist Spongio-Piline over the Collodion film. This preparation has, in the hands of a large number of medical men, given the MOST MARKED AND SATISFACTORY RESULTS in Neuralgia and Muscular Rheumatism.

TREATMENT OF NEURALGIA—Letter from Mr. METCALF JOHNSON.

[To the Editor of 'THE MEDICAL TIMES AND GAZETTE'.]

'Sir,—May I ask you to lay before your readers the following results of my experience in the treatment of Neuralgia, which is to my mind so likely to afford relief to suffering humanity that I do not feel justified in witholding it? The treatment consists in painting the part affected with Anodyne Amyl Colloid, prepared by Messrs. Ferris & Co., Druggists, of Bristol, and in the exhibition of a remedy composed of the Tincture of Gelseminum and Tincture of Guarana. The following cases of relief will be my justification for offering advice to use a prescription of a somewhat secret nature:—

'J. B. called one morning, suffering from facial neuralgia in all the four points of the surface development of the facial nerves. I painted his face over the four spots, and before the liquid was dry his pain was gone. It returned the next day, but was again relieved by the remedy, the relief lasting for twenty-four hours.

'I met A. B. in the street, who was complaining of an obstinate Neuralgia, which had resisted several of the usual remedies. A trial of the treatment here indicated was attended with immediate relief.

'It has been tried, I believe, at my suggestion, by one member at least of a family of three of my professional brethren.

'A patient suffering from podagric Neuralgia of the forearm finds such relief that frequent resort is had at night to the use of the painting with the Anodyne Colloid.

'A few days since, a lady suffering from that painful affection called "soft teeth", caused by caries, and in whose case considerable swelling was apparent, found immediate and permanent relief by painting the cheek with the remedy.

'A clergyman, of very high nervous organisation, and in whom, as is often the case, considerable strength of mental power is developed, described the relief which was obtained by use of both the remedies as "like magic". In several other instances, of which I have kept no record, relief has been obtained by the use of one or both remedies.

'Hoping this will induce more of your readers to try the remedies suggested, I leave the case in your hands, merely adding that the Anodyne Amyl Colloid professes to be a solution of Aconitine and Veratrine, with Hydride of Amyl in a medium of Collodion; but the proportions are not stated. The Tinctures of Gelseminum and Guarana are in all probability better known to your readers. I have, at the request of Messrs. Ferris & Co., already given them my testimony to the value of their preparation, in a letter addressed to them a few weeks ago. If you will kindly insert these few remarks in your paper, I think you will oblige many of your subscribers, as you will also.

'Lancaster, *May* 1878.' 'Yours, etc., METCALF JOHNSON.'

[From 'THE MEDICAL RECORD', London, May 15, 1880.]

'We have submitted to trial the "Anodyne Amyl Colloid", prepared by Messrs. Ferris & Co., of Bristol. It is prepared with Hydride of Amyl, holding in solution Aconitia and Veratria, and combined with Ethereal Collodion. *We have tried it in Neuralgia and Muscular Pains with marked benefit.*

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'The intensity of the action of the alkaloids may be increased by the subsequent application of spongio-piline moistened with warm water.'

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In 1 oz., 2 oz., and 4 oz. Bottles, 1s. 6d. per oz.; in 8 oz. and 16 oz. Bottles, 1s. 3d. per oz.

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Medical Gentlemen are earnestly and respectfully desired to observe that they are supplied with Messrs. FERRIS & CO.'S ANODYNE AMYL COLLOID. This preparation differs essentially from all others. Some UNRELIABLE and USELESS imitations are being advertised, which bear no resemblance either in composition or effect to FERRIS & CO.'S special formula. See that every Bottle bears FERRIS & CO.'S Registered Trade Mark.

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